Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61000/3**
Product name **A NEW COLOUR: 1,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

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Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

HUCOL 4CLR/4-CLORO RESORCINA
CAS. *95-88-5* 1 - 5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0.5 - 1 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		DARK BEIGE		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		70.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

SECTION 10. Stability and reactivity. ... / >>

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

SECTION 13. Disposal considerations. ... / >>

Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

7775-14-6 SODIUM DITHIONITE (Sulfites)

California:

141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act

SECTION 16. Other information. ... / >>

- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61001/3**
Product name **A NEW COLOUR: 2,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

HUCOL 4CLR/4-CLORO RESORCINA
CAS. *95-88-5* 1 - 5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0.5 - 1 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		DARK BEIGE		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		80.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

SECTION 10. Stability and reactivity. ... / >>

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

SECTION 13. Disposal considerations. ... / >>

Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

7775-14-6 SODIUM DITHIONITE (Sulfites)

California:

141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act

SECTION 16. Other information. ... / >>

- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61002/3**
Product name **A NEW COLOUR: 3,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

HUCOL 4CLR/4-CLORO RESORCINA
CAS. *95-88-5* 1 - 5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in

SECTION 6. Accidental release measures. ... / >>

emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SECTION 8. Exposure controls/personal protection. ... / >>

SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		STRONG BEIGE	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		80.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

SECTION 16. Other information. ... / >>

H413 May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

SECTION 16. Other information. ... / >>

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61003/3**
Product name **A NEW COLOUR: 4,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response:
P301+P330+P331 IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340 IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P321 Specific treatment (see sect.4 on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.
Contact with acids liberates toxic gas.
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
MONOETANOLAMMINA			
CAS.	*141-43-5*	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA			
CAS.	*615-50-9*	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 1 - 5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		STRONG BEIGE - YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	80.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61004/3**
Product name **A NEW COLOUR: 5,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 1 - 5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		STRONG BEIGE - YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	80.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61005/3**
Product name **A NEW COLOUR: 6,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

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Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 0.5 - 1 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		STRONG BEIGE - YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	80.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61006/3**
Product name **A NEW COLOUR: 7,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 1 - 5 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

RODOL RS/RESORCINA
CAS. *108-46-3* 0.5 - 1 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	80.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61007/3**
Product name **A NEW COLOUR: 8,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 0.5 - 1 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

RODOL RS/RESORCINA
CAS. *108-46-3* 0.5 - 1 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL 2A4H/2-AMINO 4-IDROSSIET
CAS. *83763-48-8* 0 - 0.5 Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		YELLOW - BIEGE	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	80.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

SECTION 12. Ecological information. ... / >>

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL 2A4H/2-AMINO 4-IDROSSIET
Solubility in water. > 5000 mg/l a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL 2A4H/2-AMINO 4-IDROSSIET
Partition coefficient: n-octanol/water. 0.59 a 25°C

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.

CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61008/3**
Product name **A NEW COLOUR: 9,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 0.5 - 1 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

RODOL RS/RESORCINA
CAS. *108-46-3* 0 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL 4AMC/4-AMINO METACRESOLO
CAS. *2835-99-6* 0.1 - 0.25 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.

SECTION 8. Exposure controls/personal protection. ... / >>

Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		YELLOW		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		80.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL 4AMC/4-AMINO METACRESOLO
LD50 (Oral). 1200 mg/kg Rat

SECTION 11. Toxicological information. ... / >>

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL 4AMC/4-AMINO METACRESOLO
LC50 - for Fish. 0.94 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 0.74 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

SECTION 12. Ecological information. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL 4AMC/4-AMINO METACRESOLO
Partition coefficient: n-octanol/water. 0.51 20°C

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

SECTION 15. Regulatory information. ... / >>

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1

SECTION 16. Other information. ... / >>

Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety

SECTION 16. Other information. ... / >>

- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61009/3**
Product name **A NEW COLOUR: 10,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 0.1 - 0.5 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

RODOL RS/RESORCINA
CAS. *108-46-3* 0 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL 4AMC/4-AMINO METACRESOLO
CAS. *2835-99-6* 0.25 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.

SECTION 8. Exposure controls/personal protection. ... / >>

Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		yellow		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		80.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL 4AMC/4-AMINO METACRESOLO
LD50 (Oral). 1200 mg/kg Rat

SECTION 11. Toxicological information. ... / >>

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL 4AMC/4-AMINO METACRESOLO
LC50 - for Fish. 0.94 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 0.74 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

SECTION 12. Ecological information. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL 4AMC/4-AMINO METACRESOLO
Partition coefficient: n-octanol/water. 0.51 20°C

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

SECTION 15. Regulatory information. ... / >>

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1

SECTION 16. Other information. ... / >>

Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety

SECTION 16. Other information. ... / >>

- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61010/3**
Product name **A NEW COLOUR: 5,1**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. 137-16-6 1 - 3
Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. 108-46-3 1 - 5
Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL MAF/META AMINOFENOLO
CAS. 591-27-5 0 - 0.5
Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL PAF/PARA AMMINOFENOLO
CAS. 123-30-8 0.25 - 0.5
Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2MR/2-METIL RESORCINA
CAS. 608-25-3 0.1 - 0.5
Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SODIUM DITHIONITE
CAS. 7775-14-6 0.1 - 0.5
Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		STRONG BEIGE -YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	70.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61011/3**
Product name **A NEW COLOUR: 6,1**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3
Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 1 - 5
Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5
Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5
Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL PM
CAS. *55-55-0* 0.1 - 0.25
Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.025 - 0.25
Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2A4H/2-AMINO 4-IDROSSIET
CAS. *83763-48-8* 0 - 0.5
Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		STRONG BEIGE -YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	70.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL PM
LD50 (Oral). 565 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

HUCOL PM
LC50 - for Fish. 1 mg/l/96h

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL 2A4H/2-AMINO 4-IDROSSIET
Solubility in water. > 5000 mg/l a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL 2A4H/2-AMINO 4-IDROSSIET
Partition coefficient: n-octanol/water. 0.59 a 25°C

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

SECTION 16. Other information. ... / >>

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"

SECTION 16. Other information. ... / >>

- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61012/3**
Product name **A NEW COLOUR: 7,1**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 1 - 5 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL PM
CAS. *55-55-0* 0.1 - 0.25 Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL 2A4H/2-AMINO 4-IDROSSIET
CAS. *83763-48-8* 0 - 0.5 Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

SECTION 8. Exposure controls/personal protection. ... / >>

Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		STRONG BEIGE N.D. YELLOW		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		70.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

SECTION 11. Toxicological information. ... / >>

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

HUCOL PM
LD50 (Oral). 565 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PM
LC50 - for Fish. 1 mg/l/96h

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL 2A4H/2-AMINO 4-IDROSSIET
Solubility in water. > 5000 mg/l a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SECTION 12. Ecological information. ... / >>

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL 2A4H/2-AMINO 4-IDROSSIET
Partition coefficient: n-octanol/water. 0.59 a 25°C

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:

SECTION 15. Regulatory information. ... / >>

None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization

SECTION 16. Other information. ... / >>

- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61013/3**
Product name **A NEW COLOUR: 8,1**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 1 - 5 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL PM
CAS. *55-55-0* 0.5 - 1 Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		STRONG BEIGE N.D. YELLOW		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		70.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

SECTION 10. Stability and reactivity. ... / >>

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

HUCOL PM
LD50 (Oral). 565 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

SECTION 12. Ecological information. ... / >>

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PM
LC50 - for Fish. 1 mg/l/96h

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

SECTION 15. Regulatory information. ... / >>

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61014/3**
Product name **A NEW COLOUR: 9,1**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 0.5 - 1 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL PM
CAS. *55-55-0* 0.5 - 1 Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

RODOL RS/RESORCINA
CAS. *108-46-3* 0 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		STRONG BEIGE N.D. YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	70.000,0000 - 80.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

HUCOL PM
LD50 (Oral). 565 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PM
LC50 - for Fish. 1 mg/l/96h

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:

SECTION 15. Regulatory information. ... / >>

This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)

SECTION 16. Other information. ... / >>

- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61015/3**
Product name **A NEW COLOUR: 4**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response:
P301+P330+P331 IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340 IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P321 Specific treatment (see sect.4 on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.
Contact with acids liberates toxic gas.
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
MONOETANOLAMMINA			
CAS.	*141-43-5*	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA			
CAS.	*615-50-9*	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

HUCOL 4CLR/4-CLORO RESORCINA
CAS. *95-88-5* 1 - 5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

SECTION 8. Exposure controls/personal protection. ... / >>

Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

SECTION 11. Toxicological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SECTION 12. Ecological information. ... / >>

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:

SECTION 15. Regulatory information. ... / >>

None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization

SECTION 16. Other information. ... / >>

- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61016/3**
Product name **A NEW COLOUR: 5**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response:
P301+P330+P331 IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340 IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P321 Specific treatment (see sect.4 on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.
Contact with acids liberates toxic gas.
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
MONOETANOLAMMINA			
CAS.	*141-43-5*	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA			
CAS.	*615-50-9*	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 0.5 - 1 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.5 - 1 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		STRONG BEIGE N.D. YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	80.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61017/3**
Product name **A NEW COLOUR: 6**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.5 - 1 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

RODOL RS/RESORCINA
CAS. *108-46-3* 0.5 - 1 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in

SECTION 6. Accidental release measures. ... / >>

emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.

SECTION 8. Exposure controls/personal protection. ... / >>

Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL
Colour		STRONG BEIGE - YELLOW
Odour		REF. STD.
Odour threshold.		Not available.
pH.		Not available.
Melting point / freezing point.		Not available.
Initial boiling point.		Not available.
Boiling range.		Not available.
Flash point.	>	60 °C. (140 °F)
Evaporation rate		Not available.
Flammability (solid, gas)		Not available.
Lower inflammability limit.		Not available.
Upper inflammability limit.		Not available.
Lower explosive limit.		Not available.
Upper explosive limit.		Not available.
Vapour pressure.		Not available.
Vapour density		Not available.
Relative density.		Not available.
Solubility		Not available.
Partition coefficient: n-octanol/water		Not available.
Auto-ignition temperature.		Not available.
Decomposition temperature.		Not available.
Viscosity		70.000,0000 - 180.000,0000
Explosive properties		Not available.
Oxidising properties		Not available.

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SECTION 10. Stability and reactivity. ... / >>

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

ACIDO OLEICO

LD50 (Oral).	> 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.

LD50 (Oral).	> 2000 mg/kg rat

MONOETANOLAMMINA

LD50 (Oral).	1515 mg/kg rat
LD50 (Dermal).	2504 mg/kg rabbit
LC50 (Inhalation).	> 1.3 mg/l 6h rat

SECTION 11. Toxicological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:

SECTION 15. Regulatory information. ... / >>

This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)

SECTION 16. Other information. ... / >>

- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61018/3**
Product name **A NEW COLOUR: 7**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 1 - 5 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

RODOL RS/RESORCINA
CAS. *108-46-3* 0.5 - 1 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		YELLOW		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	70.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

SECTION 15. Regulatory information. ... / >>

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration

SECTION 16. Other information. ... / >>

- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61019/3**
Product name **A NEW COLOUR: 8**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 0.5 - 1 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

RODOL RS/RESORCINA
CAS. *108-46-3* 0 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

SECTION 15. Regulatory information. ... / >>

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration

SECTION 16. Other information. ... / >>

- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61020/3**
Product name **A NEW COLOUR: 4,14**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.5 - 1 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.5 - 1 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in

SECTION 6. Accidental release measures. ... / >>

emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SECTION 8. Exposure controls/personal protection. ... / >>

SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		STRONG BEIGE - YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		70.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

SECTION 12. Ecological information. ... / >>

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

SECTION 16. Other information. ... / >>

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61021/3**
Product name **A NEW COLOUR: 5,14**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 1 - 3 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.5 - 1 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

RODOL RS/RESORCINA
CAS. *108-46-3* 0.5 - 1 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		STRONG BEIGE - YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	70.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61022/3**
Product name **A NEW COLOUR: 6,14**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 1 - 5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.5 - 1 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.5 - 1 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		STRONG BEIGE - YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	70.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO

LC50 - for Fish.	0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea.	0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants.	0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate

LC50 - for Fish.	56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA

Solubility in water.	1400 mg/l

Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA

Solubility in water.	> 1000 mg/l

HUCOL MAF/META AMINOFENOLO

Solubility in water.	29900 mg/l 35°C

Rapidly biodegradable.

MONOETANOLAMMINA

Solubility in water.	> 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO

Solubility in water.	> 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA

Solubility in water.	263000 mg/l 25°C

SODIUM DITHIONITE

Solubility in water.	> 10000 mg/l

Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA

Partition coefficient: n-octanol/water.	0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA

Partition coefficient: n-octanol/water.	0.74 Log KOW

MONOETANOLAMMINA

Partition coefficient: n-octanol/water.	-1.91

HUCOL PAF/PARA AMMINOFENOLO

Partition coefficient: n-octanol/water.	-0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA

Partition coefficient: n-octanol/water.	1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61023/3**
Product name **A NEW COLOUR: 5,73**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. *160104-51-8* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 1 - 5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RODOL RS/RESORCINA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
108-46-3 RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RODOL RS/RESORCINA
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RODOL RS/RESORCINA
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

New Jersey:
108-46-3 RODOL RS/RESORCINA
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61024/3**
Product name **A NEW COLOUR: 6,73**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. *160104-51-8* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 1 - 5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RODOL RS/RESORCINA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
108-46-3 RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RODOL RS/RESORCINA
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RODOL RS/RESORCINA
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

New Jersey:
108-46-3 RODOL RS/RESORCINA
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61025/3**
Product name **A NEW COLOUR: 7,73**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. *160104-51-8* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		yellow	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		80.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

SECTION 10. Stability and reactivity. ... / >>

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

SECTION 12. Ecological information. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1

SECTION 16. Other information. ... / >>

Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety

SECTION 16. Other information. ... / >>

- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61026/3**
Product name **A NEW COLOUR: 5,3**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 1 - 5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.5 - 1 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		STRONG BEIGE - YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	70.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61027/3**
Product name **A NEW COLOUR: 6,3**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. 137-16-6 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. 108-46-3 1 - 5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PAF/PARA AMMINOFENOLO
CAS. 123-30-8 0.5 - 1 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2MR/2-METIL RESORCINA
CAS. 608-25-3 0.5 - 1 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SODIUM DITHIONITE
CAS. 7775-14-6 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in

SECTION 6. Accidental release measures. ... / >>

emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.

SECTION 8. Exposure controls/personal protection. ... / >>

Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		STRONG BEIGE N.D. YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		70.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SECTION 10. Stability and reactivity. ... / >>

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

ACIDO OLEICO

LD50 (Oral).	> 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.

LD50 (Oral).	> 2000 mg/kg rat

MONOETANOLAMMINA

LD50 (Oral).	1515 mg/kg rat
LD50 (Dermal).	2504 mg/kg rabbit
LC50 (Inhalation).	> 1.3 mg/l 6h rat

SECTION 11. Toxicological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:

SECTION 15. Regulatory information. ... / >>

This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)

SECTION 16. Other information. ... / >>

- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61028/3**
Product name **A NEW COLOUR: 7,3**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
CAS. 123-30-8 0.5 - 1 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2MR/2-METIL RESORCINA
CAS. 608-25-3 0.5 - 1 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. 615-50-9 0.5 - 1 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. 7775-14-6 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. 591-27-5 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL 2A6
CAS. 6358-09-4 0.1 - 0.5 Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

SECTION 8. Exposure controls/personal protection. ... / >>

Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		ORANGE YELLOW		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		70.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

SECTION 11. Toxicological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL 2A6
Solubility in water. 450 mg/l a 25°C

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL 2A6
Partition coefficient: n-octanol/water. 1.8 a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:

SECTION 15. Regulatory information. ... / >>

None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization

SECTION 16. Other information. ... / >>

- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61029/3**
Product name **A NEW COLOUR: 8,3**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL 2MR/2-METIL RESORCINA

CAS.	*608-25-3*	0.5 - 1	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL PTD/PARA TOLUENDIAMMINA

CAS.	*615-50-9*	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL 4AMC/4-AMINO METACRESOLO

CAS.	*2835-99-6*	0.25 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL PM

CAS.	*55-55-0*	0.1 - 0.25	Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE

CAS.	*7775-14-6*	0.1 - 0.5	Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL 2A6

CAS.	*6358-09-4*	0.1 - 0.5	Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

SECTION 8. Exposure controls/personal protection. ... / >>

Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		orange		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		80.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

HUCOL 4AMC/4-AMINO METACRESOLO
LD50 (Oral). 1200 mg/kg Rat

SECTION 11. Toxicological information. ... / >>

HUCOL PM
LD50 (Oral). 565 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL 4AMC/4-AMINO METACRESOLO
LC50 - for Fish. 0.94 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 0.74 mg/l/48h Daphnia magna

HUCOL PM
LC50 - for Fish. 1 mg/l/96h

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL 2A6
Solubility in water. 450 mg/l a 25°C

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL 2A6
Partition coefficient: n-octanol/water. 1.8 a 20°C

SECTION 12. Ecological information. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

HUCOL 4AMC/4-AMINO METACRESOLO
Partition coefficient: n-octanol/water. 0.51 20°C

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2

SECTION 16. Other information. ... / >>

Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety

SECTION 16. Other information. ... / >>

- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61030/3**
Product name **A NEW COLOUR: 9,3**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.5 - 1 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 0.5 - 1 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL 4AMC/4-AMINO METACRESOLO
CAS. *2835-99-6* 0.25 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL PM
CAS. *55-55-0* 0.1 - 0.25 Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

SECTION 8. Exposure controls/personal protection. ... / >>

Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		ORANGE YELLOW		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		80.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

HUCOL 4AMC/4-AMINO METACRESOLO
LD50 (Oral). 1200 mg/kg Rat

SECTION 11. Toxicological information. ... / >>

HUCOL PM
LD50 (Oral). 565 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL 4AMC/4-AMINO METACRESOLO
LC50 - for Fish. 0.94 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 0.74 mg/l/48h Daphnia magna

HUCOL PM
LC50 - for Fish. 1 mg/l/96h

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

SECTION 12. Ecological information. ... / >>

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

HUCOL 4AMC/4-AMINO METACRESOLO
Partition coefficient: n-octanol/water. 0.51 20°C

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

SECTION 16. Other information. ... / >>

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61031/3**
Product name **A NEW COLOUR: 6,7**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. *160104-51-8* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 1 - 5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RODOL RS/RESORCINA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
108-46-3 RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RODOL RS/RESORCINA
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RODOL RS/RESORCINA
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

New Jersey:
108-46-3 RODOL RS/RESORCINA
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61032/3**
Product name **A NEW COLOUR: 7,7**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. *160104-51-8* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0 - 0.25 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

SECTION 10. Stability and reactivity. ... / >>

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

SECTION 12. Ecological information. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1

SECTION 16. Other information. ... / >>

Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety

SECTION 16. Other information. ... / >>

- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61033/3**
Product name **A NEW COLOUR: 8,72**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 0.5 - 1 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

RODOL RS/RESORCINA
CAS. *108-46-3* 0 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	70.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61034/3**
Product name **A NEW COLOUR: 10,72**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 0.5 - 1 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL 4AMC/4-AMINO METACRESOLO
CAS. *2835-99-6* 0.1 - 0.25 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		yellow		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		70.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

SECTION 10. Stability and reactivity. ... / >>

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

HUCOL 4AMC/4-AMINO METACRESOLO
LD50 (Oral). 1200 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

SECTION 12. Ecological information. ... / >>

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL 4AMC/4-AMINO METACRESOLO
LC50 - for Fish. 0.94 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 0.74 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

HUCOL 4AMC/4-AMINO METACRESOLO
Partition coefficient: n-octanol/water. 0.51 20°C

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

SECTION 15. Regulatory information. ... / >>

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61035**
Product name **A NEW COLOUR: 4,62**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 4	Combustible liquid.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H227	Combustible liquid.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / clothing and eye / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:
--
Storage:
--
Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--
Additional hazards.
Contact with acids liberates toxic gas.
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
JAROCOL AHP/ HUCOL PZ		
CAS. 155601-30-2	1 - 3	Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PAOC/PARA AMINOORTOCRESO
CAS. *2835-95-2* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. *160104-51-8* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 0.5 - 1 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM GEL	
Colour	yellow	
Odour	REF. STD.	
Odour threshold.	Not available.	
pH.	9,2000 - 10,4000	
Melting point / freezing point.	Not available.	
Initial boiling point.	Not available.	
Boiling range.	Not available.	
Flash point.	60 < T ≤ 93	°C.
Evaporation rate	Not available.	
Flammability (solid, gas)	Not available.	
Lower inflammability limit.	Not available.	
Upper inflammability limit.	Not available.	
Lower explosive limit.	Not available.	
Upper explosive limit.	Not available.	
Vapour pressure.	Not available.	
Vapour density	Not available.	
Relative density.	1,0020 - 1,0040	Kg/l
Solubility	Not available.	
Partition coefficient: n-octanol/water	Not available.	
Auto-ignition temperature.	Not available.	
Decomposition temperature.	Not available.	
Viscosity	80.000,0000 - 180.000,0000	
Explosive properties	Not available.	
Oxidising properties	Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PAOC/PARA AMINOORTOCRESO
LD50 (Oral). 3600 mg/kg rat

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

JAROCOL AHP/ HUCOL PZ
LD50 (Oral). > 2000 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

JAROCOL AHP/ HUCOL PZ
LC50 - for Fish. > 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea. 11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62.57 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish. > 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea. < 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PAOC/PARA AMINOORTOCRESO
Solubility in water. 0.004112 mg/l a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PAOC/PARA AMINOORTOCRESO
Partition coefficient: n-octanol/water. -0.53 Log KOW

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

SECTION 12. Ecological information. ... / >>

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 80	Limited Quantities 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantities 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

SECTION 14. Transport information. ... / >>

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 4	Flammable liquid, category 4
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H227	Combustible liquid.
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.

SECTION 16. Other information. ... / >>

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".

SECTION 16. Other information. ... / >>

- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 08 / 09 / 14 / 16.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61036**
Product name **A NEW COLOUR: 5,62**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 4	Combustible liquid.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H227	Combustible liquid.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / clothing and eye / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
HUCOL PAOC/PARA AMINOORTOCRESO		
CAS. 2835-95-2	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335
Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts		
CAS. 160104-51-8	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
JAROCOL AHP/ HUCOL PZ		
CAS. 155601-30-2	0.5 - 1	Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
SODIUM DITHIONITE		
CAS. 7775-14-6	0.1 - 0.5	Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

SECTION 8. Exposure controls/personal protection. ... / >>

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM GEL	
Colour	YELLOW	
Odour	REF. STD.	
Odour threshold.	Not available.	
pH.	9,2000 - 10,4000	
Melting point / freezing point.	Not available.	
Initial boiling point.	Not available.	
Boiling range.	Not available.	
Flash point.	60 < T ≤ 93	°C.
Evaporation rate	Not available.	
Flammability (solid, gas)	Not available.	
Lower inflammability limit.	Not available.	
Upper inflammability limit.	Not available.	
Lower explosive limit.	Not available.	
Upper explosive limit.	Not available.	
Vapour pressure.	Not available.	
Vapour density	Not available.	
Relative density.	1,0020 - 1,0040	Kg/l
Solubility	Not available.	
Partition coefficient: n-octanol/water	Not available.	
Auto-ignition temperature.	Not available.	
Decomposition temperature.	Not available.	
Viscosity	80.000,0000 - 180.000,0000	
Explosive properties	Not available.	
Oxidising properties	Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PAOC/PARA AMINOORTOCRESO
LD50 (Oral). 3600 mg/kg rat

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

JAROCOL AHP/ HUCOL PZ
LD50 (Oral). > 2000 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

JAROCOL AHP/ HUCOL PZ
LC50 - for Fish. > 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea. 11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62.57 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish. > 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea. < 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PAOC/PARA AMINOORTOCRESO
Solubility in water. 0.004112 mg/l a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PAOC/PARA AMINOORTOCRESO
Partition coefficient: n-octanol/water. -0.53 Log KOW

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 80 Special Provision: -	Limited Quantities 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantities 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 4	Flammable liquid, category 4
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H227	Combustible liquid.
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website

SECTION 16. Other information. ... / >>

- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 08 / 09 / 14 / 16.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61037**
Product name **A NEW COLOUR: 5,66**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 4	Combustible liquid.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H227	Combustible liquid.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / clothing and eye / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:
--
Storage:
--
Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--
Additional hazards.
Contact with acids liberates toxic gas.
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
JAROCOL AHP/ HUCOL PZ		
CAS. 155601-30-2	1 - 3	Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PAOC/PARA AMINOORTOCRESO
CAS. *2835-95-2* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. *160104-51-8* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 0.5 - 1 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	Not available.	
Colour	Not available.	
Odour	Not available.	
Odour threshold.	Not available.	
pH.	Not available.	
Melting point / freezing point.	Not available.	
Initial boiling point.	Not available.	
Boiling range.	Not available.	
Flash point.	60 < T ≤ 93	°C.
Evaporation rate	Not available.	
Flammability (solid, gas)	Not available.	
Lower inflammability limit.	Not available.	
Upper inflammability limit.	Not available.	
Lower explosive limit.	Not available.	
Upper explosive limit.	Not available.	
Vapour pressure.	Not available.	
Vapour density	Not available.	
Relative density.	Not available.	
Solubility	Not available.	
Partition coefficient: n-octanol/water	Not available.	
Auto-ignition temperature.	Not available.	
Decomposition temperature.	Not available.	
Viscosity	Not available.	
Explosive properties	Not available.	
Oxidising properties	Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PAOC/PARA AMINOORTOCRESO
LD50 (Oral). 3600 mg/kg rat

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

JAROCOL AHP/ HUCOL PZ
LD50 (Oral). > 2000 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

JAROCOL AHP/ HUCOL PZ
LC50 - for Fish. > 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea. 11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62.57 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish. > 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea. < 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PAOC/PARA AMINOORTOCRESO
Solubility in water. 0.004112 mg/l a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PAOC/PARA AMINOORTOCRESO
Partition coefficient: n-octanol/water. -0.53 Log KOW

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

SECTION 12. Ecological information. ... / >>

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 80	Limited Quantities 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantities 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

SECTION 14. Transport information. ... / >>

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 4	Flammable liquid, category 4
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H227	Combustible liquid.
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.

SECTION 16. Other information. ... / >>

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".

SECTION 16. Other information. ... / >>

- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 08 / 09 / 14 / 16.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61038/3**
Product name **A NEW COLOUR: 6,66**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
JAROCOL AHP/ HUCOL PZ		
CAS. 155601-30-2	1 - 3	Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PAOC/PARA AMINOORTOCRESO
CAS. *2835-95-2* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. *160104-51-8* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 0.5 - 1 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL PM
CAS. *55-55-0* 0.1 - 0.25 Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

SECTION 8. Exposure controls/personal protection. ... / >>

Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		YELLOW		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		70.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PAOC/PARA AMINOORTOCRESO
LD50 (Oral). 3600 mg/kg rat

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

JAROCOL AHP/ HUCOL PZ
LD50 (Oral). > 2000 mg/kg Rat

HUCOL PM
LD50 (Oral). 565 mg/kg Rat

SECTION 11. Toxicological information. ... / >>

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

JAROCOL AHP/ HUCOL PZ
LC50 - for Fish. > 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea. 11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62.57 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish. > 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea. < 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

HUCOL PM
LC50 - for Fish. 1 mg/l/96h

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PAOC/PARA AMINOORTOCRESO
Solubility in water. 0.004112 mg/l a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

SECTION 12. Ecological information. ... / >>

HUCOL PAOC/PARA AMINOORTOCRESO
Partition coefficient: n-octanol/water. -0.53 Log KOW

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1

SECTION 16. Other information. ... / >>

Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology

SECTION 16. Other information. ... / >>

- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61039/3**
Product name **A NEW COLOUR: 6,34**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Germ cell mutagenicity, category 2	Suspected of causing genetic defects.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H341	Suspected of causing genetic defects.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:
--
Storage:
--
Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--
Additional hazards.
Contact with acids liberates toxic gas.
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 1 - 2.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.5 - 1 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

RODOL RS/RESORCINA
CAS. *108-46-3* 0.5 - 1 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 0.5 - 1 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product must be handled carefully because of its possible mutagenic effects. Anyway, currently available data are insufficient to definitively prove hereditary gene alterations.
This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

SECTION 12. Ecological information. ... / >>

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.

CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61040**
Product name **A NEW COLOUR: 7,34**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 4	Combustible liquid.
Germ cell mutagenicity, category 2	Suspected of causing genetic defects.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H227	Combustible liquid.
H341	Suspected of causing genetic defects.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

SECTION 2. Hazards identification. ... / >>

H317 May cause an allergic skin reaction.

Precautionary statements:
Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / clothing and eye / face protection.
Response:
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340 IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P321 Specific treatment (see sect.4 on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.
Storage:
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.
Contact with acids liberates toxic gas.
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure,

SECTION 3. Composition/information on ingredients. ... / >>

category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. 160104-51-8 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

HUCOL PAF/PARA AMMINOFENOLO
CAS. 123-30-8 1 - 2.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2MR/2-METIL RESORCINA
CAS. 608-25-3 0.5 - 1 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

RODOL RS/RESORCINA
CAS. 108-46-3 0 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. 615-50-9 0.1 - 0.5 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. 7775-14-6 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. 591-27-5 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM GEL	
Colour	YELLOW N.D. BIEGE	
Odour	REF. STD.	
Odour threshold.	Not available.	
pH.	9,2000 - 10,6000	
Melting point / freezing point.	Not available.	
Initial boiling point.	Not available.	
Boiling range.	Not available.	
Flash point.	60 < T ≤ 93	°C.
Evaporation rate	Not available.	
Flammability (solid, gas)	Not available.	
Lower inflammability limit.	Not available.	
Upper inflammability limit.	Not available.	
Lower explosive limit.	Not available.	
Upper explosive limit.	Not available.	
Vapour pressure.	Not available.	
Vapour density	Not available.	
Relative density.	1,0020 - 1,0040	Kg/l
Solubility	Not available.	
Partition coefficient: n-octanol/water	Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	80.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product must be handled carefully because of its possible mutagenic effects. Anyway, currently available data are insufficient to definitively prove hereditary gene alterations.
This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 80	Limited Quantities 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantities 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 4	Flammable liquid, category 4
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H227	Combustible liquid.
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

SECTION 16. Other information. ... / >>

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"

SECTION 16. Other information. ... / >>

- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 08 / 09 / 14 / 16.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61041/3**
Product name **A NEW COLOUR: 5,4**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Germ cell mutagenicity, category 2	Suspected of causing genetic defects.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H341	Suspected of causing genetic defects.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:
--
Storage:
--
Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--
Additional hazards.
Contact with acids liberates toxic gas.
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 1 - 5 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. *160104-51-8* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 1 - 5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 1 - 2.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.

SECTION 8. Exposure controls/personal protection. ... / >>

Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product must be handled carefully because of its possible mutagenic effects. Anyway, currently available data are insufficient to definitively prove hereditary gene alterations.
This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

ACIDO OLEICO

LD50 (Oral).	> 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

MONOETANOLAMMINA

LD50 (Oral).	1515 mg/kg rat
LD50 (Dermal).	2504 mg/kg rabbit
LC50 (Inhalation).	> 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO

LD50 (Oral).	671 mg/kg Rat

SECTION 11. Toxicological information. ... / >>

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

SECTION 12. Ecological information. ... / >>

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RODOL RS/RESORCINA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
108-46-3 RODOL RS/RESORCINA

SECTION 15. Regulatory information. ... / >>

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value

SECTION 16. Other information. ... / >>

- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61042/3**
Product name **A NEW COLOUR: 6,4**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Germ cell mutagenicity, category 2	Suspected of causing genetic defects.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H341	Suspected of causing genetic defects.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:
--
Storage:
--
Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--
Additional hazards.
Contact with acids liberates toxic gas.
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

SECTION 3. Composition/information on ingredients. ... / >>

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. *160104-51-8* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 1 - 5 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 1 - 2.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

RODOL RS/RESORCINA
CAS. *108-46-3* 0.5 - 1 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.

SECTION 8. Exposure controls/personal protection. ... / >>

Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product must be handled carefully because of its possible mutagenic effects. Anyway, currently available data are insufficient to definitively prove hereditary gene alterations.
This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

ACIDO OLEICO

LD50 (Oral).	> 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.

LD50 (Oral).	> 2000 mg/kg rat

MONOETANOLAMMINA

LD50 (Oral).	1515 mg/kg rat
LD50 (Dermal).	2504 mg/kg rabbit
LC50 (Inhalation).	> 1.3 mg/l 6h rat

SECTION 11. Toxicological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)

SECTION 16. Other information. ... / >>

- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61043/3**
Product name **A NEW COLOUR: 7,4**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Germ cell mutagenicity, category 2	Suspected of causing genetic defects.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H341	Suspected of causing genetic defects.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:
--
Storage:
--
Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--
Additional hazards.
Contact with acids liberates toxic gas.
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 1 - 2.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL PAOC/PARA AMINOORTOCRESO
CAS. *2835-95-2* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 0.1 - 0.5 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in

SECTION 6. Accidental release measures. ... / >>

emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SECTION 8. Exposure controls/personal protection. ... / >>

SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		STRONG BEIGE N.D. YELLOW		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		70.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product must be handled carefully because of its possible mutagenic effects. Anyway, currently available data are insufficient to definitively prove hereditary gene alterations.
This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PAOC/PARA AMINOORTOCRESO
LD50 (Oral). 3600 mg/kg rat

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PAOC/PARA AMINOORTOCRESO
Solubility in water. 0.004112 mg/l a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PAOC/PARA AMINOORTOCRESO
Partition coefficient: n-octanol/water. -0.53 Log KOW

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

SECTION 12. Ecological information. ... / >>

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

SECTION 14. Transport information. ... / >>

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.

SECTION 16. Other information. ... / >>

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act

SECTION 16. Other information. ... / >>

- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61044/3**
Product name **A NEW COLOUR: 4,5**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

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Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. *160104-51-8* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

JAROCOL AHP/ HUCOL PZ
CAS. *155601-30-2* 0.5 - 1 Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.5 - 1 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.025 - 0.25 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

SECTION 8. Exposure controls/personal protection. ... / >>

Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		yellow		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		70.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

SECTION 11. Toxicological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

JAROCOL AHP/ HUCOL PZ
LD50 (Oral). > 2000 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

JAROCOL AHP/ HUCOL PZ
LC50 - for Fish. > 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea. 11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62.57 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish. > 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea. < 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

New Jersey:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

New York:
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
112-80-1 ACIDO OLEICO
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

California:
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)

SECTION 16. Other information. ... / >>

- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61045/3**
Product name **A NEW COLOUR: 9,22**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 0.5 - 1 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL 4AMC/4-AMINO METACRESOLO
CAS. *2835-99-6* 0.1 - 0.25 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

SECTION 8. Exposure controls/personal protection. ... / >>

Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

SECTION 11. Toxicological information. ... / >>

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

HUCOL 4AMC/4-AMINO METACRESOLO
LD50 (Oral). 1200 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL 4AMC/4-AMINO METACRESOLO
LC50 - for Fish. 0.94 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 0.74 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

SECTION 12. Ecological information. ... / >>

12.3. Bioaccumulative potential.

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

HUCOL 4AMC/4-AMINO METACRESOLO
Partition coefficient: n-octanol/water. 0.51 20°C

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2

SECTION 16. Other information. ... / >>

STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances

SECTION 16. Other information. ... / >>

- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61051/3**
Product name **A NEW COLOUR: 44,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 1 - 5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0 - 0.25 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.

SECTION 8. Exposure controls/personal protection. ... / >>

Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		YELLOW		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		80.000,0000 - 140.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

ACIDO OLEICO

LD50 (Oral).	> 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.

LD50 (Oral).	> 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO

LD50 (Oral).	693 mg/kg Rat
LD50 (Dermal).	1000 mg/kg Rat
LC50 (Inhalation).	1162 mg/m3 Rat

MONOETANOLAMMINA

LD50 (Oral).	1515 mg/kg rat
LD50 (Dermal).	2504 mg/kg rabbit
LC50 (Inhalation).	> 1.3 mg/l 6h rat

SECTION 11. Toxicological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:

SECTION 15. Regulatory information. ... / >>

This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)

SECTION 16. Other information. ... / >>

- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61053/3**
Product name **A NEW COLOUR: 66,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

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Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3
Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 0.5 - 1
Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5
Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5
Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5
Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5
Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		STRONG BEIGE - YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	80.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.

ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.

ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61054/3**
Product name **A NEW COLOUR: 77,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

sodium N-lauroylsarcosinate
CAS. *137-16-6* 1 - 3 Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 0.5 - 1 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

HUCOL 2MR/2-METIL RESORCINA
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	80.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information. ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61055/3**
Product name **A NEW COLOUR: 88,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 1 - 5 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

RODOL RS/RESORCINA
CAS. *108-46-3* 0.5 - 1 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in

SECTION 6. Accidental release measures. ... / >>

emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.

SECTION 8. Exposure controls/personal protection. ... / >>

Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		yellow	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		80.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SECTION 10. Stability and reactivity. ... / >>

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

ACIDO OLEICO

LD50 (Oral).	> 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

HUCOL MAF/META AMINOFENOLO

LD50 (Oral).	693 mg/kg Rat
LD50 (Dermal).	1000 mg/kg Rat
LC50 (Inhalation).	1162 mg/m3 Rat

MONOETANOLAMMINA

LD50 (Oral).	1515 mg/kg rat
LD50 (Dermal).	2504 mg/kg rabbit
LC50 (Inhalation).	> 1.3 mg/l 6h rat

SECTION 11. Toxicological information. ... / >>

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:

SECTION 15. Regulatory information. ... / >>

This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)

SECTION 16. Other information. ... / >>

- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61046/3**
Product name **CREAM BASE FOR A NEW COLOUR**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H314 Causes severe skin burns and eye damage.

Precautionary statements:
Prevention:
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
Response:

SECTION 2. Hazards identification. ... / >>

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P363	Wash contaminated clothing before reuse.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, acute toxicity, category 1	Very toxic to aquatic life.
Hazardous to the aquatic environment, chronic toxicity, category 2	Toxic to aquatic life with long lasting effects.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

P391	Collect spillage.

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
cetrimonium chloride		
CAS. 112-02-7	3 - 5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
MONOETANOLAMMINA		
CAS. 141-43-5	3 - 5	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

SECTION 3. Composition/information on ingredients. ... / >>

SODIO METASILICATO
CAS. *6834-92-0* 1 - 3 Substance or mixture corrosive to metals, category 1 H290, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335

Poly(diallyldimethylammonium chloride)
CAS. *26062-79-3* 1 - 5 Hazardous to the aquatic environment, chronic toxicity, category 3 H412

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of

SECTION 8. Exposure controls/personal protection. ... / >>

respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		ivory	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		200.000,0000 - 350.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

DISODIUM METASILICATE: the aqueous solutions behave like strong bases.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

DISODIUM METASILICATE:may react dangerously with fluorine and lithium.
ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.
CASTOROIL: avoid contact with strong oxidising agents.

10.5. Incompatible materials.
DISODIUM METASILICATE:in aqueous solution it is incompatible with acids, organic anhydrides, acrilates, alcohols, aldehydes, alkyl oxides, cresoles, caprolactam solutions, epichlorohydrin, ethylene dichloride; glycols, isocyanates, ketones, nitrates, phenols and vinyl acetate.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

SECTION 10. Stability and reactivity. ... / >>

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

ACIDO OLEICO

LD50 (Oral).	> 5000 mg/kg dato fornito da Huwell

SODIO METASILICATO

LD50 (Oral).	666.7 mg/kg Rat

MONOETANOLAMMINA

LD50 (Oral).	1515 mg/kg rat
LD50 (Dermal).	2504 mg/kg rabbit
LC50 (Inhalation).	> 1.3 mg/l 6h rat

cetrimonium chloride

LD50 (Oral).	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal).	1600 mg/kg rabbit male/female

Poly(diallyldimethylammonium chloride)

LD50 (Oral).	> 5000 mg/kg Rat
LD50 (Dermal).	> 5000 mg/kg Rabbit

SECTION 12. Ecological information.

This product is dangerous for the environment and highly toxic for aquatic organisms.
This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

ACIDO OLEICO

LC50 - for Fish.	> 100 mg/l/96h dato fornito da Huwell

SODIO METASILICATO

LC50 - for Fish.	210 mg/l/96h Danio rerio
EC50 - for Crustacea.	1700 mg/l/48h Daphnia magna

MONOETANOLAMMINA

LC50 - for Fish.	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea.	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish.	1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea.	0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

cetrimonium chloride

LC50 - for Fish.	0.71 mg/l/96h
EC50 - for Crustacea.	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.18 mg/l/72h

12.2. Persistence and degradability.

AKOGEL
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

MONOETANOLAMMINA

Solubility in water.	> 1000000 mg/l

cetrimonium chloride

Solubility in water.	240 mg/l

12.3. Bioaccumulative potential.

MONOETANOLAMMINA

Partition coefficient: n-octanol/water.	-1.91

cetrimonium chloride

Partition coefficient: n-octanol/water.	3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, N.O.S. MIXTURE
IMDG:	CORROSIVE LIQUID, N.O.S. (MONOETANOLAMMINA; SODIO METASILICATO)
IATA:	CORROSIVE LIQUID, N.O.S. (MONOETANOLAMMINA; SODIO METASILICATO)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

141-43-5	MONOETANOLAMMINA
8001-79-4	CASTOROIL (Vegetable oil dust, Vegetable oil mist)

Minnesota:

141-43-5	MONOETANOLAMMINA

New Jersey:

141-43-5	MONOETANOLAMMINA

New York:
No component(s) listed.

Pennsylvania:

68334-28-1	AKOGEL
112-80-1	ACIDO OLEICO
141-43-5	MONOETANOLAMMINA

California:

141-43-5	MONOETANOLAMMINA

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Met. Corr. 1	Substance or mixture corrosive to metals, category 1
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4

SECTION 16. Other information. ... / >>

Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H290	May be corrosive to metals.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety

SECTION 16. Other information. ... / >>

- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61079/3**
Product name **A NEW COLOUR 000 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.

SECTION 2. Hazards identification. ... / >>

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	9 - 24	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
SODIO METASILICATO		
CAS. 6834-92-0	3 - 5	Substance or mixture corrosive to metals, category 1 H290, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335
Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts		
CAS. 160104-51-8	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM GEL
Colour	yellow
Odour	REF. STD.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		80.000,0000 - 190.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

DISODIUM METASILICATE: the aqueous solutions behave like strong bases.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

DISODIUM METASILICATE:may react dangerously with fluorine and lithium.
ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.

DISODIUM METASILICATE:in aqueous solution it is incompatible with acids, organic anhydrides, acrilates, alcohols, aldehydes, alkyl oxides, cresoles, caprolactam solutions, epichlorohydrin, ethylene dichloride; glycols, isocyanates, ketones, nitrates, phenols and vinyl acetate.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.

ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

SECTION 11. Toxicological information. ... / >>

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

SODIO METASILICATO
LD50 (Oral). 666.7 mg/kg Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

SODIO METASILICATO
LC50 - for Fish. 210 mg/l/96h Danio rerio
EC50 - for Crustacea. 1700 mg/l/48h Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

12.3. Bioaccumulative potential.

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, N.O.S. (MONOETANOLAMMINA; SODIO METASILICATO)
IMDG:	CORROSIVE LIQUID, N.O.S. (MONOETANOLAMMINA; SODIO METASILICATO)
IATA:	CORROSIVE LIQUID, N.O.S. (MONOETANOLAMMINA; SODIO METASILICATO)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA

Minnesota:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA

New Jersey:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

SECTION 15. Regulatory information. ... / >>

New York:
No component(s) listed.

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)

California:

141-43-5	MONOETANOLAMMINA

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Met. Corr. 1	Substance or mixture corrosive to metals, category 1
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

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- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
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- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61080/3**
Product name **A NEW COLOUR RED SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
JAROCOL AHP/ HUCOL PZ		
CAS. 155601-30-2	3 - 5	Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0.5 - 1 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

SECTION 8. Exposure controls/personal protection. ... / >>

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL
Colour		BEIGE - AMARILLO
Odour		REF. STD.
Odour threshold.		Not available.
pH.		Not available.
Melting point / freezing point.		Not available.
Initial boiling point.		Not available.
Boiling range.		Not available.
Flash point.	>	60 °C. (140 °F)
Evaporation rate		Not available.
Flammability (solid, gas)		Not available.
Lower inflammability limit.		Not available.
Upper inflammability limit.		Not available.
Lower explosive limit.		Not available.
Upper explosive limit.		Not available.
Vapour pressure.		Not available.
Vapour density		Not available.
Relative density.		Not available.
Solubility		Not available.
Partition coefficient: n-octanol/water		Not available.
Auto-ignition temperature.		Not available.
Decomposition temperature.		Not available.
Viscosity		70.000,0000 - 180.000,0000
Explosive properties		Not available.
Oxidising properties		Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO

LD50 (Oral).	> 5000 mg/kg dato fornito da Huwell

HUCOL MAF/META AMINOFENOLO

LD50 (Oral).	693 mg/kg Rat
LD50 (Dermal).	1000 mg/kg Rat
LC50 (Inhalation).	1162 mg/m3 Rat

MONOETANOLAMMINA

LD50 (Oral).	1515 mg/kg rat
LD50 (Dermal).	2504 mg/kg rabbit
LC50 (Inhalation).	> 1.3 mg/l 6h rat

JAROCOL AHP/ HUCOL PZ

LD50 (Oral).	> 2000 mg/kg Rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO

LC50 - for Fish.	> 100 mg/l/96h dato fornito da Huwell

HUCOL MAF/META AMINOFENOLO

LC50 - for Fish.	313.687 mg/l/96h
EC50 - for Crustacea.	1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	62 mg/l/72h Pseudokirchnerella subcapitata

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LC50 - for Fish.	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea.	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish.	1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea.	0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

JAROCOL AHP/ HUCOL PZ

LC50 - for Fish.	> 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea.	11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	62.57 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish.	> 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea.	< 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants.	1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL MAF/META AMINOFENOLO

Solubility in water.	29900 mg/l 35°C

Rapidly biodegradable.

MONOETANOLAMMINA

Solubility in water.	> 1000000 mg/l

SODIUM DITHIONITE

Solubility in water.	> 10000 mg/l

Biodegradability: Information not available.

12.3. Bioaccumulative potential.

MONOETANOLAMMINA

Partition coefficient: n-octanol/water.	-1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

New Jersey:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

New York:
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
112-80-1 ACIDO OLEICO
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

California:
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

SECTION 15. Regulatory information. ... / >>

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value

SECTION 16. Other information. ... / >>

- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61081/3**
Product name **A NEW COLOUR YELLOW SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.

SECTION 2. Hazards identification. ... / >>

P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response:
P301+P330+P331 IF SWALLOWED: rinse mouth. Do not induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340 IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P321 Specific treatment (see sect.4 on this label).
P363 Wash contaminated clothing before reuse.

Storage:
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
JAROCOL TAP		
CAS. 5392-28-9	1 - 5	Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H335
SODIUM DITHIONITE		
CAS. 7775-14-6	0.1 - 0.5	Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM GEL
Colour	orange
Odour	REF. STD.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		70.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

JAROCOL TAP
LD50 (Oral). 4700 mg/kg Rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

JAROCOL TAP
Solubility in water. 1650 mg/l 20°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	ETHANOLAMINE or ETHANOLAMINE SOLUTION
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

New Jersey:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

SECTION 15. Regulatory information. ... / >>

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule

SECTION 16. Other information. ... / >>

- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
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- VOC: Volatile organic Compounds
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- ECHA website

- 6 NYCRR part 597
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- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

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This document must not be regarded as a guarantee on any specific product property.
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Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61082/3**
Product name **A NEW COLOUR BLUE SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.

SECTION 2. Hazards identification. ... / >>

P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response:
P301+P330+P331 IF SWALLOWED: rinse mouth. Do not induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340 IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P321 Specific treatment (see sect.4 on this label).
P363 Wash contaminated clothing before reuse.

Storage:
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL NNB/BIS IDROSSIETIL PARA		
CAS. 54381-16-7	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335
JAROCOL AN		
CAS. 90-15-3	1 - 3	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335
SODIUM DITHIONITE		
CAS. 7775-14-6	0.1 - 0.5	Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM GEL
Colour	ORANGE
Odour	REF. STD.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		70.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

JAROCOL AN
LD50 (Oral). 2300 mg/kg Rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL NNB/BIS IDROSSIETIL PARA
Solubility in water. 296 mg/l a 20°C

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

JAROCOL AN
Solubility in water. 250 mg/l 20°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code

SECTION 16. Other information. ... / >>

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

SECTION 16. Other information. ... / >>

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61083/3**
Product name **A NEW COLOUR GREEN SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.

SECTION 2. Hazards identification. ... / >>

P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331 IF SWALLOWED: rinse mouth. Do not induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340 IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P321 Specific treatment (see sect.4 on this label).
P363 Wash contaminated clothing before reuse.

Storage:

P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
JAROCOL TAP		
CAS. 5392-28-9	1 - 5	Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H335
SODIUM DITHIONITE		
CAS. 7775-14-6	0.1 - 0.5	Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM GEL
Colour	BEIGE - AMARILLO
Odour	REF. STD.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		70.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

JAROCOL TAP
LD50 (Oral). 4700 mg/kg Rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

JAROCOL TAP
Solubility in water. 1650 mg/l 20°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	ETHANOLAMINE or ETHANOLAMINE SOLUTION
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

New Jersey:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

SECTION 15. Regulatory information. ... / >>

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule

SECTION 16. Other information. ... / >>

- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61085/3**
Product name **A NEW COLOUR VIOLET SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
JAROCOL AHP/ HUCOL PZ		
CAS. 155601-30-2	1 - 3	Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
SODIUM DITHIONITE		
CAS. 7775-14-6	0.1 - 0.5	Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM GEL
Colour	BEIGE - AMARILLO
Odour	REF. STD.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		70.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

JAROCOL AHP/ HUCOL PZ
LD50 (Oral). > 2000 mg/kg Rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

JAROCOL AHP/ HUCOL PZ
LC50 - for Fish. > 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea. 11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62.57 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish. > 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea. < 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61086/3**
Product name **A NEW COLOUR ORANGE SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
JAROCOL AHP/ HUCOL PZ		
CAS. 155601-30-2	1 - 3	Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
SODIUM DITHIONITE		
CAS. 7775-14-6	0.1 - 0.5	Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM GEL
Colour	BEIGE - AMARILLO
Odour	REF. STD.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		70.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

JAROCOL AHP/ HUCOL PZ
LD50 (Oral). > 2000 mg/kg Rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

JAROCOL AHP/ HUCOL PZ
LC50 - for Fish. > 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea. 11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62.57 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish. > 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea. < 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61091/3**
Product name **A NEW COLOUR 33,0 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Acute toxicity, category 4	Harmful if swallowed.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P312	IF SWALLOWED: call a POISON CENTER / doctor / . . . / if you feel unwell.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P330	Rinse mouth.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:
--
Storage:
--
Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--
Additional hazards.
Contact with acids liberates toxic gas.
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA
CAS. *615-50-9* 1 - 5 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

RODOL RS/RESORCINA
CAS. *108-46-3* 1 - 5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. *160104-51-8* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0.5 - 1 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

HUCOL 2A4H/2-AMINO 4-IDROSSIET
CAS. *83763-48-8* 0 - 0.5 Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		STRONG BEIGE		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	80.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).
This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

SECTION 11. Toxicological information. ... / >>

RODOL RS/RESORCINA
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

SECTION 12. Ecological information. ... / >>

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL 2A4H/2-AMINO 4-IDROSSIET
Solubility in water. > 5000 mg/l a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL 2A4H/2-AMINO 4-IDROSSIET
Partition coefficient: n-octanol/water. 0.59 a 25°C

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

SECTION 15. Regulatory information. ... / >>

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency

SECTION 16. Other information. ... / >>

- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61092/3**
Product name **A NEW COLOUR 8,44 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Germ cell mutagenicity, category 2	Suspected of causing genetic defects.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H341	Suspected of causing genetic defects.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:
--
Storage:
--
Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--
Additional hazards.
Contact with acids liberates toxic gas.
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

SECTION 3. Composition/information on ingredients. ... / >>

HUCOL PAOC/PARA AMINOORTOCRESO
CAS. *2835-95-2* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. *160104-51-8* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 1 - 2.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

JAROCOL AHP/ HUCOL PZ
CAS. *155601-30-2* 0.5 - 1 Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		yellow	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		80.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

SECTION 10. Stability and reactivity. ... / >>

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product must be handled carefully because of its possible mutagenic effects. Anyway, currently available data are insufficient to definitively prove hereditary gene alterations.
This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PAOC/PARA AMINOORTOCRESO
LD50 (Oral). 3600 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

JAROCOL AHP/ HUCOL PZ
LD50 (Oral). > 2000 mg/kg Rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

SECTION 12. Ecological information. ... / >>

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

JAROCOL AHP/ HUCOL PZ
LC50 - for Fish. > 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea. 11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62.57 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish. > 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea. < 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PAOC/PARA AMINOORTOCRESO
Solubility in water. 0.004112 mg/l a 20°C

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PAOC/PARA AMINOORTOCRESO
Partition coefficient: n-octanol/water. -0.53 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A803	Packaging instructions: 856 Packaging instructions: 852

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

SECTION 16. Other information. ... / >>

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website

SECTION 16. Other information. ... / >>

- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61093/3**
Product name **A NEW COLOUR 10,32 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts		
CAS. 160104-51-8	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity,

SECTION 3. Composition/information on ingredients. ... / >>

category 2 H411

HUCOL 4AMC/4-AMINO METACRESOLO

CAS. *2835-99-6* 0.25 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SODIUM DITHIONITE

CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR

SECTION 8. Exposure controls/personal protection. ... / >>

1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		yellow	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		80.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL 4AMC/4-AMINO METACRESOLO
LD50 (Oral). 1200 mg/kg Rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

SECTION 12. Ecological information. ... / >>

MONOETANOLAMMINA

LC50 - for Fish.	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea.	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish.	1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea.	0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL 4AMC/4-AMINO METACRESOLO

LC50 - for Fish.	0.94 mg/l/96h Brachydanio rerio
EC50 - for Crustacea.	0.74 mg/l/48h Daphnia magna

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts

LC50 - for Fish.	7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea.	7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA

Solubility in water.	> 1000 mg/l

MONOETANOLAMMINA

Solubility in water.	> 1000000 mg/l

SODIUM DITHIONITE

Solubility in water.	> 10000 mg/l

Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PTD/PARA TOLUENDIAMMINA

Partition coefficient: n-octanol/water.	0.74 Log KOW

MONOETANOLAMMINA

Partition coefficient: n-octanol/water.	-1.91

HUCOL 4AMC/4-AMINO METACRESOLO

Partition coefficient: n-octanol/water.	0.51 20°C

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: ETHANOLAMINE or ETHANOLAMINE SOLUTION
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

SECTION 15. Regulatory information. ... / >>

California:

141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act

SECTION 16. Other information. ... / >>

- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61094/3**
Product name **A NEW COLOUR 6,11 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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Additional hazards.

Contact with acids liberates toxic gas.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. *160104-51-8* 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

RODOL RS/RESORCINA
CAS. *108-46-3* 0.5 - 1 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

HUCOL MAF/META AMINOFENOLO
CAS. *591-27-5* 0 - 0.5 Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SODIUM DITHIONITE
CAS. *7775-14-6* 0.1 - 0.5 Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302

HUCOL 2A4H/2-AMINO 4-IDROSSIET
CAS. *83763-48-8* 0 - 0.5 Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

HUCOL PAF/PARA AMMINOFENOLO
CAS. *123-30-8* 0.025 - 0.25 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		yellow	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	80.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.
ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.
ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA

LD50 (Oral).	301 mg/kg rat
LD50 (Dermal).	3360 mg/Kg rabbit

SECTION 11. Toxicological information. ... / >>

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

HUCOL MAF/META AMINOFENOLO
LD50 (Oral). 693 mg/kg Rat
LD50 (Dermal). 1000 mg/kg Rat
LC50 (Inhalation). 1162 mg/m3 Rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL PAF/PARA AMMINOFENOLO
LD50 (Oral). 671 mg/kg Rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

HUCOL MAF/META AMINOFENOLO
LC50 - for Fish. 313.687 mg/l/96h
EC50 - for Crustacea. 1.1 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 62 mg/l/72h Pseudokirchnerella subcapitata

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

HUCOL PAF/PARA AMMINOFENOLO
LC50 - for Fish. 0.82 mg/l/96h Oryzias latipes
EC50 - for Crustacea. 0.182 mg/l/48h Dapnia magna (mobility)
EC50 - for Algae / Aquatic Plants. 0.065 mg/l/72h biomass

SECTION 12. Ecological information. ... / >>

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL 2A4H/2-AMINO 4-IDROSSIET
Solubility in water. > 5000 mg/l a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

HUCOL MAF/META AMINOFENOLO
Solubility in water. 29900 mg/l 35°C
Rapidly biodegradable.

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL PAF/PARA AMMINOFENOLO
Solubility in water. > 1000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL 2A4H/2-AMINO 4-IDROSSIET
Partition coefficient: n-octanol/water. 0.59 a 25°C

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL PAF/PARA AMMINOFENOLO
Partition coefficient: n-octanol/water. -0.09 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

SECTION 13. Disposal considerations. ... / >>

Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

SECTION 15. Regulatory information. ... / >>

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61095/3**
Product name **A NEW COLOUR 8,11 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts		
CAS. 160104-51-8	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RODOL RS/RESORCINA		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
SODIUM DITHIONITE		
CAS. 7775-14-6	0.1 - 0.5	Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302
HUCOL 2A4H/2-AMINO 4-IDROSSIET		
CAS. 83763-48-8	0 - 0.5	Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		yellow		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		80.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.

ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.

ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.

SECTION 11. Toxicological information. ... / >>

The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

SECTION 12. Ecological information. ... / >>

MONOETANOLAMMINA

LC50 - for Fish.	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea.	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish.	1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea.	0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts

LC50 - for Fish.	7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea.	7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

RODOL RS/RESORCINA

Solubility in water.	1400 mg/l

Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL 2A4H/2-AMINO 4-IDROSSIET

Solubility in water.	> 5000 mg/l a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA

Solubility in water.	> 1000 mg/l

MONOETANOLAMMINA

Solubility in water.	> 1000000 mg/l

SODIUM DITHIONITE

Solubility in water.	> 10000 mg/l

Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA

Partition coefficient: n-octanol/water.	0.85 Log Pow 25°

HUCOL 2A4H/2-AMINO 4-IDROSSIET

Partition coefficient: n-octanol/water.	0.59 a 25°C

HUCOL PTD/PARA TOLUENDIAMMINA

Partition coefficient: n-octanol/water.	0.74 Log KOW

MONOETANOLAMMINA

Partition coefficient: n-octanol/water.	-1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road

SECTION 16. Other information. ... / >>

- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

SECTION 16. Other information. ... / >>

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61095/3**
Product name **A NEW COLOUR 8,11 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts		
CAS. 160104-51-8	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RODOL RS/RESORCINA		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
SODIUM DITHIONITE		
CAS. 7775-14-6	0.1 - 0.5	Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302
HUCOL 2A4H/2-AMINO 4-IDROSSIET		
CAS. 83763-48-8	0 - 0.5	Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		yellow		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		80.000,0000 - 180.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.

ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.

ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.

SECTION 11. Toxicological information. ... / >>

The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

SECTION 12. Ecological information. ... / >>

MONOETANOLAMMINA

LC50 - for Fish.	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea.	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish.	1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea.	0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts

LC50 - for Fish.	7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea.	7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

RODOL RS/RESORCINA

Solubility in water.	1400 mg/l

Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL 2A4H/2-AMINO 4-IDROSSIET

Solubility in water.	> 5000 mg/l a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA

Solubility in water.	> 1000 mg/l

MONOETANOLAMMINA

Solubility in water.	> 1000000 mg/l

SODIUM DITHIONITE

Solubility in water.	> 10000 mg/l

Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA

Partition coefficient: n-octanol/water.	0.85 Log Pow 25°

HUCOL 2A4H/2-AMINO 4-IDROSSIET

Partition coefficient: n-octanol/water.	0.59 a 25°C

HUCOL PTD/PARA TOLUENDIAMMINA

Partition coefficient: n-octanol/water.	0.74 Log KOW

MONOETANOLAMMINA

Partition coefficient: n-octanol/water.	-1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (MONOETANOLAMMINA)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road

SECTION 16. Other information. ... / >>

- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

SECTION 16. Other information. ... / >>

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61096/3**
Product name **A NEW COLOUR 10,11 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts		
CAS. 160104-51-8	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
RODOL RS/RESORCINA		
CAS. 108-46-3	0 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
SODIUM DITHIONITE		
CAS. 7775-14-6	0.1 - 0.5	Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302
HUCOL 2A4H/2-AMINO 4-IDROSSIET		
CAS. 83763-48-8	0 - 0.5	Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		yellow	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		80.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.

ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.

ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.

SECTION 11. Toxicological information. ... / >>

The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

SECTION 12. Ecological information. ... / >>

MONOETANOLAMMINA

LC50 - for Fish.	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea.	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish.	1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea.	0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts

LC50 - for Fish.	7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea.	7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL 2A4H/2-AMINO 4-IDROSSIET
Solubility in water. > 5000 mg/l a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL 2A4H/2-AMINO 4-IDROSSIET
Partition coefficient: n-octanol/water. 0.59 a 25°C

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: ETHANOLAMINE or ETHANOLAMINE SOLUTION
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road

SECTION 16. Other information. ... / >>

- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

SECTION 16. Other information. ... / >>

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61096/3**
Product name **A NEW COLOUR 10,11 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts		
CAS. 160104-51-8	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
RODOL RS/RESORCINA		
CAS. 108-46-3	0 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
SODIUM DITHIONITE		
CAS. 7775-14-6	0.1 - 0.5	Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302
HUCOL 2A4H/2-AMINO 4-IDROSSIET		
CAS. 83763-48-8	0 - 0.5	Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL	
Colour		yellow	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		80.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.

ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.

ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.

SECTION 11. Toxicological information. ... / >>

The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

SECTION 12. Ecological information. ... / >>

MONOETANOLAMMINA

LC50 - for Fish.	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea.	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish.	1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea.	0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts

LC50 - for Fish.	7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea.	7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

RODOL RS/RESORCINA
Solubility in water. 1400 mg/l
Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL 2A4H/2-AMINO 4-IDROSSIET
Solubility in water. > 5000 mg/l a 20°C

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

HUCOL 2A4H/2-AMINO 4-IDROSSIET
Partition coefficient: n-octanol/water. 0.59 a 25°C

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: ETHANOLAMINE or ETHANOLAMINE SOLUTION
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road

SECTION 16. Other information. ... / >>

- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

SECTION 16. Other information. ... / >>

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61098/3**
Product name **A NEW COLOUR 10,22 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts		
CAS. 160104-51-8	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
SODIUM DITHIONITE		
CAS. 7775-14-6	0.1 - 0.5	Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302
HUCOL 2MR/2-METIL RESORCINA		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
JAROCOL PAP		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully.
Get medical advice/attention.

SECTION 4. First aid measures. ... / >>

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

SECTION 7. Handling and storage. ... / >>

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

Provide an emergency shower with face and eye wash station.

If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.

ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.

ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.

SECTION 11. Toxicological information. ... / >>

The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

HUCOL 2MR/2-METIL RESORCINA
LD50 (Oral). 200 mg/kg

JAROCOL PAP
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information. ... / >>

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-,	C12-14-alkyl	ethers,	magnesium	salts	
LC50 - for Fish.	7.1 mg/l/96h Brachydanio rerio				
EC50 - for Crustacea.	7.7 mg/l/48h Daphnia sp.				

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA
Solubility in water. > 1000 mg/l

MONOETANOLAMMINA
Solubility in water. > 1000000 mg/l

HUCOL 2MR/2-METIL RESORCINA
Solubility in water. 263000 mg/l 25°C

SODIUM DITHIONITE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

HUCOL PTD/PARA TOLUENDIAMMINA
Partition coefficient: n-octanol/water. 0.74 Log KOW

MONOETANOLAMMINA
Partition coefficient: n-octanol/water. -1.91

HUCOL 2MR/2-METIL RESORCINA
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID:	ETHANOLAMINE or ETHANOLAMINE SOLUTION
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

New Jersey:
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

New York:
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
112-80-1 ACIDO OLEICO
56-81-5 GLICERINA FU 30 BE
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

California:
141-43-5 MONOETANOLAMMINA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

SECTION 15. Regulatory information. ... / >>

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%

SECTION 16. Other information. ... / >>

- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61099/3**
Product name **A NEW COLOUR 10,77 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts		
CAS. 160104-51-8	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RODOL RS/RESORCINA		
CAS. 108-46-3	0 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
SODIUM DITHIONITE		
CAS. 7775-14-6	0.1 - 0.5	Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302
JAROCOL PAP		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

SECTION 4. First aid measures. ... / >>

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.

ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.

ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.

SECTION 11. Toxicological information. ... / >>

The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

JAROCOL PAP
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

SECTION 12. Ecological information. ... / >>

HUCOL PTD/PARA TOLUENDIAMMINA

LC50 - for Fish.	1.08 mg/l/96h
Chronic NOEC for Crustacea.	0.63 mg/l 21d Daphnia magna

MONOETANOLAMMINA

LC50 - for Fish.	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea.	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish.	1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea.	0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts

LC50 - for Fish.	7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea.	7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

RODOL RS/RESORCINA

Solubility in water.	1400 mg/l

Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA

Solubility in water.	> 1000 mg/l

MONOETANOLAMMINA

Solubility in water.	> 1000000 mg/l

SODIUM DITHIONITE

Solubility in water.	> 10000 mg/l

Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA

Partition coefficient: n-octanol/water.	0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA

Partition coefficient: n-octanol/water.	0.74 Log KOW

MONOETANOLAMMINA

Partition coefficient: n-octanol/water.	-1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: ETHANOLAMINE or ETHANOLAMINE SOLUTION
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road

SECTION 16. Other information. ... / >>

- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

SECTION 16. Other information. ... / >>

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61100/3**
Product name **A NEW COLOUR 10,12 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do not induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
MONOETANOLAMMINA		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts		
CAS. 160104-51-8	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
HUCOL PTD/PARA TOLUENDIAMMINA		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
SODIUM DITHIONITE		
CAS. 7775-14-6	0.1 - 0.5	Self-heating substance or mixture, category 1 H251, Acute toxicity, category 4 H302
RODOL RS/RESORCINA		
CAS. 108-46-3	0 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

MONOETANOLAMMINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RODOL RS/RESORCINA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		beige		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		80.000,0000 - 195.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

ETHANOLAMINE: can react dangerously with: acrylonitrile, chloroepoxypropane, chlorosulphuric acid, hydrogen chloride, iron-sulphur compounds, acetic acid, acetic anhydride, mesityl oxide, nitric acid, sulphuric acid, strong mineral acids, vinyl acetate, cellulose nitrate.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

ETHANOLAMINE: avoid exposure to air and sources of heat.

10.5. Incompatible materials.

ETHANOLAMINE: iron, strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.

ETHANOLAMINE: nitrogen oxides, carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.

SECTION 11. Toxicological information. ... / >>

The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.
Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.
If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RODOL RS/RESORCINA
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

MONOETANOLAMMINA
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RODOL RS/RESORCINA
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RODOL RS/RESORCINA
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

HUCOL PTD/PARA TOLUENDIAMMINA
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

SECTION 12. Ecological information. ... / >>

MONOETANOLAMMINA

LC50 - for Fish.	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea.	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish.	1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea.	0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts

LC50 - for Fish.	7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea.	7.7 mg/l/48h Daphnia sp.

12.2. Persistence and degradability.

RODOL RS/RESORCINA

Solubility in water.	1400 mg/l

Rapidly biodegradable.

ACIDO OLEICO
Rapidly biodegradable.

HUCOL PTD/PARA TOLUENDIAMMINA

Solubility in water.	> 1000 mg/l

MONOETANOLAMMINA

Solubility in water.	> 1000000 mg/l

SODIUM DITHIONITE

Solubility in water.	> 10000 mg/l

Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RODOL RS/RESORCINA

Partition coefficient: n-octanol/water.	0.85 Log Pow 25°

HUCOL PTD/PARA TOLUENDIAMMINA

Partition coefficient: n-octanol/water.	0.74 Log KOW

MONOETANOLAMMINA

Partition coefficient: n-octanol/water.	-1.91

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1760

14.2. UN proper shipping name.

ADR / RID: ETHANOLAMINE or ETHANOLAMINE SOLUTION
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; MONOETANOLAMMINA)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80	Limited Quantity 5 L	Tunnel restriction code (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:

108-46-3	RODOL RS/RESORCINA

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

New Jersey:

108-46-3	RODOL RS/RESORCINA
56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RODOL RS/RESORCINA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RODOL RS/RESORCINA
112-80-1	ACIDO OLEICO

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICERINA FU 30 BE
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RODOL RS/RESORCINA
141-43-5	MONOETANOLAMMINA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H251	Self-heating: may catch fire.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)

SECTION 16. Other information. ... / >>

- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64000/3**
Product name **FINEST GLOSS NEUTRAL / NEUTRO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		GEL		
Colour		WHITE CREAM		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	5.000,0000 - 13.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

65-85-0	benzoic acid

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

New York:

65-85-0	benzoic acid

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol
65-85-0	benzoic acid

SECTION 15. Regulatory information. ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

SECTION 16. Other information. ... / >>

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64001/3**
Product name **FINEST PIGMENTS GOLDEN / DORATO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		GEL		
Colour		DARK ORANGE		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	5.000,0000 - 13.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64002/31**
Product name **FINEST PIGMENTS red / rosso**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

SECTION 2. Hazards identification. ... / >>

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
DEHYDOL LS 4		
CAS. 68439-50-9	3 - 5	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL 4EN		
CAS. 65235-31-6	0.5 - 1	Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
COL. ARIANOR CHERRY RED		
CAS. 77061-58-6	0 - 0.25	Acute toxicity, category 4 H302, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		GEL		
Colour		red		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Flammability (solid, gas)	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	Not available.
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	6.000,0000 - 15.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

HUCOL 4EN

LD50 (Oral).	2000 mg/kg rat

COL. ARIANOR CHERRY RED

LD50 (Oral).	> 2000 mg/kg rat

DEHYDOL LS 4

LD50 (Oral).	> 2000 mg/kg rat
LD50 (Dermal).	2000 mg/kg male rabbit
LC50 (Inhalation).	> 1.6 mg/l/4h rat

SECTION 11. Toxicological information. ... / >>

ZEMEA PROPANEDIOL

LD50 (Oral).	15000 mg/kg rat
LD50 (Dermal).	> 20000 mg/kg rabbit
LC50 (Inhalation).	> 5 mg/l/4h rat

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts

LD50 (Oral).	2335 mg/kg rat

Carcinogenicity Assessment:

5989-27-5	(R)-p-mentha-1,8-diene
IARC:3	
67-63-0	ALCOOL ISOPROPILICO
IARC:3	
64-17-5	ETHANOL
ACGIH:: A3	
IARC:1	

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

DEHYDOL LS 4

LC50 - for Fish.	0.876 mg/l/96h Danio rerio
EC50 - for Crustacea.	0.39 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1.2 mg/l/72h

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts

LC50 - for Fish.	1.11 mg/l/96h
Chronic NOEC for Fish.	0.135 mg/l 37d
Chronic NOEC for Crustacea.	0.32 mg/l 21d
Chronic NOEC for Algae / Aquatic Plants.	0.36 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability.

DEHYDOL LS 4
Rapidly biodegradable.

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts
Rapidly biodegradable.

12.3. Bioaccumulative potential.

DEHYDOL LS 4

Partition coefficient: n-octanol/water.	4.75

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New Jersey:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

SECTION 15. Regulatory information. ... / >>

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
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- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds

SECTION 16. Other information. ... / >>

- WHMIS: Workplace Hazardous Materials Information System.

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- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
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- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
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- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

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The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64003/31**
Product name **FINEST PIGMENTS copper / rame**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.

SECTION 2. Hazards identification. ... / >>

P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .

P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see sect.4 on this label).

P333+P313 If skin irritation or rash occurs: get medical advice.

P337+P313 If eye irritation persists: get medical advice / attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

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Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL 2A6		
CAS. 6358-09-4	0.1 - 0.5	Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
HUCOL 4EN		
CAS. 65235-31-6	0.1 - 0.5	Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

SECTION 5. Firefighting measures. ... / >>

UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

SECTION 8. Exposure controls/personal protection. ... / >>

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		GEL		
Colour		INTENSE ORANGE		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		5.000,0000 - 13.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

SECTION 10. Stability and reactivity. ... / >>

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.
Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

HUCOL 4EN
LD50 (Oral). 2000 mg/kg rat

ZEMEA PROPANEDIOL
LD50 (Oral). 15000 mg/kg rat
LD50 (Dermal). > 20000 mg/kg rabbit
LC50 (Inhalation). > 5 mg/l/4h rat

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts
LD50 (Oral). 2335 mg/kg rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

ZEMEA PROPANEDIOL
LC50 - for Fish. > 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea. 7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 1600 mg/l/72h Algae

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts
LC50 - for Fish. 1.11 mg/l/96h
Chronic NOEC for Fish. 0.135 mg/l 37d
Chronic NOEC for Crustacea. 0.32 mg/l 21d
Chronic NOEC for Algae / Aquatic Plants. 0.36 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts
Rapidly biodegradable.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
64-17-5 ETHANOL
100-51-6 BENZYL ALCOHOL
67-63-0 PROPAN-2-OL
56-81-5 Glycerol

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
64-17-5 ETHANOL
100-51-6 BENZYL ALCOHOL
67-63-0 PROPAN-2-OL
56-81-5 Glycerol

New Jersey:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
64-17-5 ETHANOL
67-63-0 PROPAN-2-OL
56-81-5 Glycerol

New York:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation

SECTION 16. Other information. ... / >>

- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64004/31**
Product name **FINEST PIGMENTS mahogany / mogano**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

SECTION 2. Hazards identification. ... / >>

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
DEHYDOL LS 4		
CAS. 68439-50-9	5 - 9	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
HUCOL 4EN		
CAS. 65235-31-6	0.1 - 0.5	Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
COL. ARIANOR CHERRY RED		
CAS. 77061-58-6	0 - 0.25	Acute toxicity, category 4 H302, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		GEL		
Colour		VIOLET		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Flammability (solid, gas)	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	Not available.
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	6.000,0000 - 15.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

HUCOL 4EN

LD50 (Oral).	2000 mg/kg rat

COL. ARIANOR CHERRY RED

LD50 (Oral).	> 2000 mg/kg rat

DEHYDOL LS 4

LD50 (Oral).	> 2000 mg/kg rat
LD50 (Dermal).	2000 mg/kg male rabbit
LC50 (Inhalation).	> 1.6 mg/l/4h rat

SECTION 11. Toxicological information. ... / >>

ZEMEA PROPANEDIOL
LD50 (Oral). 15000 mg/kg rat
LD50 (Dermal). > 20000 mg/kg rabbit
LC50 (Inhalation). > 5 mg/l/4h rat

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts
LD50 (Oral). 2335 mg/kg rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

COL. ARIANOR CHERRY RED
EC50 - for Crustacea. 0.44 mg/l/48h Daphnie

DEHYDOL LS 4
LC50 - for Fish. 0.876 mg/l/96h Danio rerio
EC50 - for Crustacea. 0.39 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 1.2 mg/l/72h

ZEMEA PROPANEDIOL
LC50 - for Fish. > 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea. 7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 1600 mg/l/72h Algae

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts
LC50 - for Fish. 1.11 mg/l/96h
Chronic NOEC for Fish. 0.135 mg/l 37d
Chronic NOEC for Crustacea. 0.32 mg/l 21d
Chronic NOEC for Algae / Aquatic Plants. 0.36 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability.

DEHYDOL LS 4
Rapidly biodegradable.

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HUCOL 4EN
Partition coefficient: n-octanol/water. 0.6 Log KOW

COL. ARIANOR CHERRY RED
Partition coefficient: n-octanol/water. -1.97

DEHYDOL LS 4
Partition coefficient: n-octanol/water. 4.75

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New Jersey:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:

SECTION 15. Regulatory information. ... / >>

This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value

SECTION 16. Other information. ... / >>

- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64005/3**
Product name **FINEST PIGMENTS ASH / CENERE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		GEL		
Colour		dark grey		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	5.000,0000 - 13.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64006/3**
Product name **FINEST PIGMENTS PEARL / PERLA**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		GEL		
Colour		VIOLET		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	5.000,0000 - 13.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
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- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
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- IC50: Immobilization Concentration 50%
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- IMO: International Maritime Organization
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- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
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- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

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- IARC website
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- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64007/3**
Product name **FINEST PIGMENTS SAND / SABBIA**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		GEL		
Colour		brown		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	5.000,0000 - 13.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
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- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64008/3**
Product name **FINEST PIGMENTS Nø 3**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Skin sensitization, category 1 — May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H317 May cause an allergic skin reaction.

Precautionary statements:
Prevention:
P261 Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .

SECTION 2. Hazards identification. ... / >>

P321	Specific treatment (see sect.4 on this label).
P333+P313	If skin irritation or rash occurs: get medical advice.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
ARIANOR/JAROCOL MAHOGANY		
CAS. 26381-41-9	0.1 - 0.5	Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

SECTION 8. Exposure controls/personal protection. ... / >>

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		GEL
Colour		brown
Odour		REF. STD.
Odour threshold.		Not available.
pH.		Not available.
Melting point / freezing point.		Not available.
Initial boiling point.		Not available.
Boiling range.		Not available.
Flash point.	>	60 °C. (140 °F)
Evaporation rate		Not available.
Flammability (solid, gas)		Not available.
Lower inflammability limit.		Not available.
Upper inflammability limit.		Not available.
Lower explosive limit.		Not available.
Upper explosive limit.		Not available.
Vapour pressure.		Not available.
Vapour density		Not available.
Relative density.		Not available.
Solubility		Not available.
Partition coefficient: n-octanol/water		Not available.
Auto-ignition temperature.		Not available.
Decomposition temperature.		Not available.
Viscosity		5.000,0000 - 13.000,0000
Explosive properties		Not available.
Oxidising properties		Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

SECTION 11. Toxicological information. ... / >>

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

ARIANOR/JAROCOL MAHOGANY

LD50 (Oral).	> 2000 mg/kg rat

ZEMEA PROPANEDIOL

LD50 (Oral).	15000 mg/kg rat
LD50 (Dermal).	> 20000 mg/kg rabbit
LC50 (Inhalation).	> 5 mg/l/4h rat

Carcinogenicity Assessment:

5989-27-5	(R)-p-mentha-1,8-diene
IARC:3	
67-63-0	ALCOOL ISOPROPILICO
IARC:3	
64-17-5	ETHANOL
ACGIH:: A3	
IARC:1	

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

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Clean Air Act Section 602 Class II Substances:
No component(s) listed.

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No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

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313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

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This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

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Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Skin Sens. 1	Skin sensitization, category 1
H317	May cause an allergic skin reaction.

LEGEND:
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- 6 NYCRR part 597
- Cal/OSHA website
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- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".

SECTION 16. Other information. ... / >>

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- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64009/3**
Product name **FINEST PIGMENTS Nø 4**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Skin sensitization, category 1 — May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H317 May cause an allergic skin reaction.

Precautionary statements:
Prevention:
P261 Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .

SECTION 2. Hazards identification. ... / >>

P321 Specific treatment (see sect.4 on this label).
P333+P313 If skin irritation or rash occurs: get medical advice.
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
ARIANOR/JAROCOL MAHOGANY		
CAS. 26381-41-9	0.1 - 0.5	Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

SECTION 8. Exposure controls/personal protection. ... / >>

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID GEL
Colour		brown
Odour		REF. STD.
Odour threshold.		Not available.
pH.		Not available.
Melting point / freezing point.		Not available.
Initial boiling point.		Not available.
Boiling range.		Not available.
Flash point.	>	60 °C. (140 °F)
Evaporation rate		Not available.
Flammability (solid, gas)		Not available.
Lower inflammability limit.		Not available.
Upper inflammability limit.		Not available.
Lower explosive limit.		Not available.
Upper explosive limit.		Not available.
Vapour pressure.		Not available.
Vapour density		Not available.
Relative density.		Not available.
Solubility		Not available.
Partition coefficient: n-octanol/water		Not available.
Auto-ignition temperature.		Not available.
Decomposition temperature.		Not available.
Viscosity		5.000,0000 - 13.000,0000
Explosive properties		Not available.
Oxidising properties		Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

SECTION 11. Toxicological information. ... / >>

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

ARIANOR/JAROCOL MAHOGANY

LD50 (Oral).	> 2000 mg/kg rat

ZEMEA PROPANEDIOL

LD50 (Oral).	15000 mg/kg rat
LD50 (Dermal).	> 20000 mg/kg rabbit
LC50 (Inhalation).	> 5 mg/l/4h rat

Carcinogenicity Assessment:

5989-27-5	(R)-p-mentha-1,8-diene
IARC:3	
67-63-0	ALCOOL ISOPROPILICO
IARC:3	
64-17-5	ETHANOL
ACGIH:: A3	
IARC:1	

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Skin Sens. 1	Skin sensitization, category 1
H317	May cause an allergic skin reaction.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".

SECTION 16. Other information. ... / >>

- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64010/3**
Product name **FINEST PIGMENTS Nø 5**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		GEL		
Colour		brown		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	5.000,0000 - 13.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64011/3**
Product name **FINEST PIGMENTS Nø 6**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		GEL		
Colour		brown		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	5.000,0000 - 13.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64012/3**
Product name **FINEST PIGMENTS Nø 7**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		GEL		
Colour		brown		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	5.000,0000 - 13.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64013/3**
Product name **FINEST PIGMENTS Nø 8**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		GEL		
Colour		brown		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	5.000,0000 - 13.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **64014/3**
Product name **FINEST PIGMENTS Nø 9**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		GEL		
Colour		brown		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	5.000,0000 - 13.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71146/3**
Product name **NATURAL TECH ENERGIZING SHAMPOO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.

SECTION 2. Hazards identification. ... / >>

P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see sect.4 on this label).
P333+P313	If skin irritation or rash occurs: get medical advice.
P337+P313	If eye irritation persists: get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	5 - 9	Eye irritation, category 2 H319
Glycine, N-(2-aminoethyl)-N-(2-hydroxyethyl)-, N-C12-20 acyl derivs., monosodium salts		
CAS. 90387-75-0	1 - 5	Eye irritation, category 2 H319
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
CAFFEINA ANIDRA FU		
CAS. 58-08-2	1 - 5	Acute toxicity, category 4 H302
OLIO ESSEN.DI MENTA PIPERITA		
CAS. 8006-90-4	0.1 - 0.5	Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Peppermint, ext.		
CAS. 84082-70-2	0.1 - 0.5	Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Eucalyptus globulus oil		
CAS. 8000-48-4	0.1 - 0.5	Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
O.E. EUCALIPTUS OE1027		
CAS. 8000-48-4	0.1 - 0.5	Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

SECTION 4. First aid measures. ... / >>

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	OPALESCENT GEL
Colour	red
Odour	REF. STD.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		1.500,0000 - 4.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.
Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

SECTION 11. Toxicological information. ... / >>

CAFFEINA ANIDRA FU
LD50 (Oral). 355 mg/kg rat

CYCLOHEXANE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit
LC50 (Inhalation). 13.9 mg/l/4h Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Carcinogenicity Assessment:
58-08-2 CAFFEINA ANIDRA FU
IARC:3
97-53-0 eugenol
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

CAFFEINA ANIDRA FU
LC50 - for Fish. 87 mg/l/96h Leuciscus idus
EC50 - for Crustacea. 182 mg/l/48h Daphnia magna

CYCLOHEXANE
LC50 - for Fish. 4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 32.7 mg/l/72h Chlorella vulgaris

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LC50 - for Fish. > 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea. 14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea. 6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants. 12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability.
CYCLOHEXANE: not easily biodegradable.

CAFFEINA ANIDRA FU
Rapidly biodegradable.

CYCLOHEXANE
Solubility in water. mg/l 0.1 - 100
Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

12.3. Bioaccumulative potential.
CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

CYCLOHEXANE	
Partition coefficient: n-octanol/water.	3.44

12.4. Mobility in soil.
CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE	
Partition coefficient: soil/water.	2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

RCRA Code:
110-82-7 CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

New Jersey:
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

SECTION 15. Regulatory information. ... / >>

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

California:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H330	Fatal if inhaled.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71148**
Product name **NATURAL TECH ENERGIZING LOTION**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2	Highly flammable liquid and vapour.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.

SECTION 2. Hazards identification. ... / >>

P241	Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: use . . . to extinguish.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
ETHANOL		
CAS. 64-17-5	40 - 60	Flammable liquid, category 2 H225
PROPAN-2-OL		
CAS. 67-63-0	1 - 5	Flammable liquid, category 2 H225, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336
O.E. EUCALIPTUS OE1027		
CAS. 8000-48-4	1 - 5	Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

PROPAN-2-OL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	492	200	983	400
OSHA	USA	980	400		
CAL/OSHA	USA	980	400	1225	500
NIOSH	USA	980	400	1225	500

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		da liquido trasparente a legg.opalescente	
Colour		colourless	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		4,3000 - 5,3000	
Melting point / freezing point.		Not available.	
Initial boiling point.	>	35 °C.	(95 °F)
Boiling range.		Not available.	
Flash point.	<	23 °C.	(73,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9120 - 0,9220	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		Not available.	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid.

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

ETHANOL
LD50 (Oral). > 5000 mg/kg Rat
LC50 (Inhalation). 120 mg/l/4h Pimephales promelas

PROPAN-2-OL
LD50 (Oral). 4710 mg/kg Rat
LD50 (Dermal). 12800 mg/kg Rat
LC50 (Inhalation). 72.6 mg/l/4h Rat

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
67-63-0 ALCOOL ISOPROPILICO
IARC:3
58-08-2 CAFFEINA ANIDRA FU
IARC:3
97-53-0 eugenol
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

PROPAN-2-OL
Rapidly biodegradable.

12.3. Bioaccumulative potential.

ETHANOL
Partition coefficient: n-octanol/water. -0.35

PROPAN-2-OL
Partition coefficient: n-octanol/water. 0.05

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1993

14.2. UN proper shipping name.

ADR / RID: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)
IMDG: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)
IATA: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)

14.3. Transport hazard class(es).

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33 Special Provision: 640C	Limited Quantities 1 L	Tunnel restriction code (D/E)
IMDG:	EMS: F-E, S-E	Limited Quantities 1 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3	Packaging instructions: 364 Packaging instructions: 353

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Minnesota:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

SECTION 15. Regulatory information. ... / >>

None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Asp. Tox. 1	Aspiration hazard, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit

SECTION 16. Other information. ... / >>

- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 09 / 10 / 11 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71150**
Product name **NT ENERGIZING GEL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Flammable liquid, category 2 — Highly flammable liquid and vapour.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H225 Highly flammable liquid and vapour.

Precautionary statements:
Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground / bond container and receiving equipment.
P241 Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242 Use only non-sparking tools.

SECTION 2. Hazards identification. ... / >>

P243 Take precautionary measures against static discharge.
P280 Wear protective gloves / eye protection / face protection.
Response:
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P370+P378 In case of fire: use . . . to extinguish.
Storage:
P403+P235 Store in a well-ventilated place. Keep cool.
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
ETHANOL		
CAS. 64-17-5	24 - 40	Flammable liquid, category 2 H225
PROPAN-2-OL		
CAS. 67-63-0	1 - 5	Flammable liquid, category 2 H225, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336
CAFFEINA ANIDRA FU		
CAS. 58-08-2	1 - 5	Acute toxicity, category 4 H302
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT

SECTION 5. Firefighting measures. ... / >>

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.

SECTION 8. Exposure controls/personal protection. ... / >>

TLV-ACGIH ACGIH 2014

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

PROPAN-2-OL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	492	200	983	400
OSHA	USA	980	400		
CAL/OSHA	USA	980	400	1225	500
NIOSH	USA	980	400	1225	500

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	OPAQUE GEL
Colour	colourless

SECTION 9. Physical and chemical properties. ... / >>

Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		4,8000 - 5,8000	
Melting point / freezing point.		Not available.	
Initial boiling point.	>	35 °C.	(95 °F)
Boiling range.		Not available.	
Flash point.	<	23 °C.	(73,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9550 - 0,9650	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		8.000,0000 - 20.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

CAFFEINA ANIDRA FU

LD50 (Oral).	355 mg/kg rat

CYCLOHEXANE

LD50 (Oral).	> 5000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg Rabbit
LC50 (Inhalation).	13.9 mg/l/4h Rat

SECTION 11. Toxicological information. ... / >>

ETHANOL
LD50 (Oral). > 5000 mg/kg Rat
LC50 (Inhalation). 120 mg/l/4h Pimephales promelas

PROPAN-2-OL
LD50 (Oral). 4710 mg/kg Rat
LD50 (Dermal). 12800 mg/kg Rat
LC50 (Inhalation). 72.6 mg/l/4h Rat

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
67-63-0 ALCOOL ISOPROPILICO
IARC:3
58-08-2 CAFFEINA ANIDRA FU
IARC:3
97-53-0 eugenol
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

CAFFEINA ANIDRA FU
LC50 - for Fish. 87 mg/l/96h Leuciscus idus
EC50 - for Crustacea. 182 mg/l/48h Daphnia magna

CYCLOHEXANE
LC50 - for Fish. 4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 32.7 mg/l/72h Chlorella vulgaris

12.2. Persistence and degradability.

CAFFEINA ANIDRA FU
Rapidly biodegradable.

CYCLOHEXANE
Solubility in water. mg/l 0.1 - 100
Rapidly biodegradable.

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

PROPAN-2-OL
Rapidly biodegradable.

12.3. Bioaccumulative potential.

CYCLOHEXANE
Partition coefficient: n-octanol/water. 3.44

ETHANOL
Partition coefficient: n-octanol/water. -0.35

PROPAN-2-OL
Partition coefficient: n-octanol/water. 0.05

12.4. Mobility in soil.

SECTION 12. Ecological information. ... / >>

CYCLOHEXANE
Partition coefficient: soil/water. 2.89

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1993

14.2. UN proper shipping name.

ADR / RID: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)
IMDG: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)
IATA: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)

14.3. Transport hazard class(es).

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33 Special Provision: 640D	Limited Quantities 1 L	Tunnel restriction code (D/E)
IMDG:	EMS: F-E, S-E	Limited Quantities 1 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3	

SECTION 14. Transport information. ... / >>

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
110-82-7 CYCLOHEXANE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

RCRA Code:
110-82-7 CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
110-82-7 CYCLOHEXANE
64-17-5 ETHANOL
124-68-5 2-AMINO-2-METHYLPROPANOL
67-63-0 PROPAN-2-OL

SECTION 15. Regulatory information. ... / >>

Minnesota:

110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
124-68-5	2-AMINO-2-METHYLPROPANOL
67-63-0	PROPAN-2-OL

New York:

110-82-7	CYCLOHEXANE

Pennsylvania:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
124-68-5	2-AMINO-2-METHYLPROPANOL
67-63-0	PROPAN-2-OL

California:

110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 08 / 09 / 10 / 11 / 12 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71152**
Product name **NATURAL TECH NOURISHING SHAMPOO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Eye irritation, category 2 — Causes serious eye irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H319 Causes serious eye irritation.

Precautionary statements:
Prevention:
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 2. Hazards identification. ... / >>

P337+P313 If eye irritation persists: Get medical advice / attention.

Storage:

--

Disposal:

--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	5 - 9	Eye irritation, category 2 H319
Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts		
CAS. 68650-39-5	1 - 3	Serious eye damage, category 1 H318
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

SECTION 5. Firefighting measures. ... / >>

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

CYCLOHEXANE					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID OPAQUE GEL	
Colour		BEIGE - ORANGE	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		5,0000 - 5,7000	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0230 - 1,0330	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	3.000,0000 - 5.500,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.
Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

CYCLOHEXANE

LD50 (Oral).	> 5000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg Rabbit
LC50 (Inhalation).	13.9 mg/l/4h Rat

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LD50 (Oral).	8400 mg/kg rat
LD50 (Dermal).	> 2000 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

CYCLOHEXANE

LC50 - for Fish.	4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	32.7 mg/l/72h Chlorella vulgaris

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts

LC50 - for Fish.	> 10 mg/l/96h
EC50 - for Crustacea.	> 10 mg/l/48h Daphnia magna

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish.	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea.	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants.	12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability.

SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC: tends to be distributed exclusively in the air where it is photodegradable. The small amount that remains in the water tends to deposit at the bottom and is biodegraded; it is thus not bioaccumulated by fish. In the soil the substance remains absorbed and is unable to reach the subterranean layers.

CYCLOHEXANE

Solubility in water.	mg/l 0.1 - 100

Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

12.3. Bioaccumulative potential.

CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

CYCLOHEXANE

Partition coefficient: n-octanol/water.	3.44

12.4. Mobility in soil.

CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE

Partition coefficient: soil/water.	2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE

SECTION 15. Regulatory information. ... / >>

65-85-0	benzoic acid

EPCRA 313 TRI:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

RCRA Code:

110-82-7	CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
3844-45-9	FD&C BLUE N. 1 05601
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

California:

3844-45-9	FD&C BLUE N. 1 05601
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information. ... / >>

None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
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- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds

SECTION 16. Other information. ... / >>

- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71154/3**
Product name **NATURAL TECH NOURISHING HAIR BUILDING PAK**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 1	Causes damage to organs through prolonged or repeated exposure.
Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H372	Causes damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice if you feel unwell.
P321 Specific treatment (see sect.4 on this label).
P332+P313 If skin irritation occurs: get medical advice.
P337+P313 If eye irritation persists: get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

docosyltrimethylammonium methyl sulphate

CAS. *81646-13-1* 0.5 - 1 Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM		
Colour		white		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		50.000,0000 - 110.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.
Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

12.2. Persistence and degradability.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3

SECTION 16. Other information. ... / >>

Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
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- VOC: Volatile organic Compounds
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- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
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This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71155/3**
Product name **NATURAL TECH NOURISHING VEGETARIAN MIRACLE CONDITIONER (RETAIL)**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P321 Specific treatment (see sect.4 on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

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Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
cetrimonium chloride			
CAS.	*112-02-7*	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
docosyltrimethylammonium methyl sulphate			
CAS.	*81646-13-1*	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAMY
Colour	white
Odour	REF. STD.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		30.000,0000 - 70.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

SABONALC16-C18 / CETILSTEARIL.

LD50 (Oral).	> 2000 mg/kg rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral).	3190 mg/kg rat
LD50 (Dermal).	3342 mg/kg coniglio
LC50 (Inhalation).	> 6 mg/l/1h rat

SECTION 11. Toxicological information. ... / >>

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
68334-28-1	Oils, vegetable, hydrogenated

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2

SECTION 16. Other information. ... / >>

Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

SECTION 16. Other information. ... / >>

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71157/3**
Product name **NATURAL TECH NOURISHING VEGETARIAN MIRACLE CONDITIONER (RETAIL)**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P321 Specific treatment (see sect.4 on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
cetrimonium chloride			
CAS.	*112-02-7*	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
docosyltrimethylammonium methyl sulphate			
CAS.	*81646-13-1*	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAMY
Colour	white
Odour	REF. STD.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		18.000,0000 - 45.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

SABONALC16-C18 / CETILSTEARIL.

LD50 (Oral).	> 2000 mg/kg rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral).	3190 mg/kg rat
LD50 (Dermal).	3342 mg/kg coniglio
LC50 (Inhalation).	> 6 mg/l/1h rat

SECTION 11. Toxicological information. ... / >>

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
68334-28-1	Oils, vegetable, hydrogenated

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2

SECTION 16. Other information. ... / >>

Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

SECTION 16. Other information. ... / >>

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71158/3**
Product name **NATURAL TECH NOURISHING RESTRUCTURING MIRACLE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures. ... / >>

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		LIGHT BEIGE		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	16.000,0000 - 28.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

SECTION 12. Ecological information. ... / >>

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
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- GHS: Globally Harmonized System of classification and labeling of chemicals
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- IC50: Immobilization Concentration 50%
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- OEL: Occupational Exposure Level
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- RCRA Code: Resource Conservation and Recovery Act Code
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- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71159**
Product name **NATURAL TECH NOURISHING LIVING ENZYME INFUSION**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information.

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

SECTION 2. Hazards identification. ... / >>

Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements: --
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
cetrimonium chloride		
CAS. 112-02-7	0.25 - 0.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

SECTION 5. Firefighting measures. ... / >>

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

SECTION 8. Exposure controls/personal protection. ... / >>

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		TRANSPARENT LIQUID	
Colour		yellow	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		4,6000 - 5,6000	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0260 - 1,0360	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		Not available.	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

SECTION 10. Stability and reactivity. ... / >>

10.6. Hazardous decomposition products.
1,2-PROPANEDIOL: carbon oxides.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

GLICOLE PROPILENICO	
LD50 (Oral).	22000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg rabbit
LC50 (Inhalation).	> 317042 mg/l rabbit
cetrimonium chloride	
LD50 (Oral).	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal).	1600 mg/kg rabbit male/female

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

GLICOLE PROPILENICO	
LC50 - for Fish.	> 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants.	24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea.	13020 mg/l Ceriodaphnia sp. (reproduction or growth_7 d)

12.2. Persistence and degradability.

GLICOLE PROPILENICO
Rapidly biodegradable.

12.3. Bioaccumulative potential.

GLICOLE PROPILENICO	
Partition coefficient: n-octanol/water.	-1.07 Log KOW
BCF.	0.09 stimato

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE

Minnesota:

56-81-5	GLICERINA FU 30 BE
57-55-6	GLICOLE PROPILENICO

New Jersey:

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No component(s) listed.

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122-99-6	2-PHENOXYETHANOL (Glycol ethers)

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

SECTION 16. Other information. ... / >>

H413 May cause long lasting harmful effects to aquatic life.

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- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
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- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
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- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
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- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

SECTION 16. Other information. ... / >>

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71161/3**
Product name **NT ANTI-DANDRUFF SHAMPOO SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

SECTION 2. Hazards identification. ... / >>

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
D-glucopyranose, oligomeric, C10-16 glycosides (even numbered), carboxymethyl ethers, sodium salts		
CAS. 383178-66-3	5 - 9	Eye irritation, category 2 H319
1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts		
CAS. 61789-40-0	3 - 5	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	1 - 5	Eye irritation, category 2 H319
SELENIO DISOLFURO		
CAS. 7488-56-4	0.5 - 1	Acute toxicity, category 2 H330, Acute toxicity, category 3 H301, Specific target organ toxicity - repeated exposure, category 2 H373
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
CAS. 54464-57-2	0.1 - 0.5	Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	VISCOUS GEL
Colour	ORANGE
Odour	REF. STD.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		12.000,0000 - 20.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL: it is hygroscopic and stable under normal conditions; at high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.
CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
1,2-PROPANEDIOL: carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

SECTION 11. Toxicological information. ... / >>

GLICOLE PROPILENICO
LD50 (Oral). 22000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg rabbit
LC50 (Inhalation). > 317042 mg/l rabbit

SELENIO DISOLFURO
LD50 (Oral). 139 mg/kg rat

CYCLOHEXANE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit
LC50 (Inhalation). 13.9 mg/l/4h Rat

D-glucopyranose, oligomeric, C10-16 glycosides (even numbered), carboxymethyl ethers, sodium salts
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 5000 mg/kg Rabbit

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts
LD50 (Oral). 2335 mg/kg rat

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

GLICOLE PROPILENICO
LC50 - for Fish. > 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. 18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants. 24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea. 13020 mg/l Ceriodaphnia sp. (reproduction or growth_7 d)

CYCLOHEXANE
LC50 - for Fish. 4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 32.7 mg/l/72h Chlorella vulgaris

D-glucopyranose, oligomeric, C10-16 glycosides (even numbered), carboxymethyl ethers, sodium salts
LC50 - for Fish. 7.1 mg/l/96h
EC50 - for Algae / Aquatic Plants. 12 mg/l/72h
Chronic NOEC for Fish. 1 mg/l 28d
Chronic NOEC for Crustacea. 1 mg/l 48h

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts
LC50 - for Fish. 1.11 mg/l/96h
Chronic NOEC for Fish. 0.135 mg/l 37d
Chronic NOEC for Crustacea. 0.32 mg/l 21d
Chronic NOEC for Algae / Aquatic Plants. 0.36 mg/l Desmodesmus subspicatus 72h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LC50 - for Fish. > 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea. 14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea. 6.25 mg/l Daphnia magna 48h

SECTION 12. Ecological information. ... / >>

Chronic NOEC for Algae / Aquatic Plants. 12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability.
CYCLOHEXANE: not easily biodegradable.

GLICOLE PROPILENICO
Rapidly biodegradable.

CYCLOHEXANE
Solubility in water. mg/l 0.1 - 100
Rapidly biodegradable.

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts
Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

12.3. Bioaccumulative potential.
CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

GLICOLE PROPILENICO
Partition coefficient: n-octanol/water. -1.07 Log KOW
BCF. 0.09 stimato

CYCLOHEXANE
Partition coefficient: n-octanol/water. 3.44

12.4. Mobility in soil.
CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE
Partition coefficient: soil/water. 2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

7488-56-4	SELENIO DISOLFURO
110-82-7	CYCLOHEXANE

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

7488-56-4	SELENIO DISOLFURO
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE

EPCRA 313 TRI:

7488-56-4	SELENIO DISOLFURO

SECTION 15. Regulatory information. ... / >>

110-82-7 CYCLOHEXANE

RCRA Code:
7488-56-4 SELENIO DISOLFURO
110-82-7 CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
7488-56-4 SELENIO DISOLFURO
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

Minnesota:
56-81-5 GLICERINA FU 30 BE
57-55-6 GLICOLE PROPILENICO
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

New Jersey:
56-81-5 GLICERINA FU 30 BE
57-55-6 GLICOLE PROPILENICO
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

New York:
7488-56-4 SELENIO DISOLFURO
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

Pennsylvania:
56-81-5 GLICERINA FU 30 BE
57-55-6 GLICOLE PROPILENICO
7488-56-4 SELENIO DISOLFURO
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

California:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2 Flammable liquid, category 2
Acute Tox. 2 Acute toxicity, category 2
Acute Tox. 3 Acute toxicity, category 3

SECTION 16. Other information. ... / >>

Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition

SECTION 16. Other information. ... / >>

- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71163/3**
Product name **NATURAL TECH PURIFYING GEL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Reproductive toxicity, category 2	Suspected of damaging fertility or the unborn child.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H361	Suspected of damaging fertility or the unborn child.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P308+P313 IF exposed or concerned: get medical advice.
P321 Specific treatment (see sect.4 on this label).
P333+P313 If skin irritation or rash occurs: get medical advice.
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, acute toxicity, category 1	Very toxic to aquatic life.
Hazardous to the aquatic environment, chronic toxicity, category 2	Toxic to aquatic life with long lasting effects.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
P391 Collect spillage.
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
pentasodium (carboxylatomethyl)iminobis(ethylenenitrilo)tetraacetate		
CAS. 140-01-2	1 - 5	Reproductive toxicity, category 2 H361, Acute toxicity, category 4 H332
pyrithione zinc		
CAS. 13463-41-7	0.25 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 3 H331, Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=100, Hazardous to the aquatic environment, chronic toxicity, category 1 H410 M=10

SECTION 3. Composition/information on ingredients. ... / >>

PIROCTONEOLAMINA
CAS. *68890-66-4* 0.25 - 0.5 Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

(R*,R*)-α,4-dimethyl-α-(4-methyl-3-pentenyl)cyclohex-3-ene-1-methanol
CAS. *515-69-5* 0 - 0.5 Hazardous to the aquatic environment, chronic toxicity, category 2 H411

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

CYCLOHEXANE
CAS. *110-82-7* 0 - 0.25 Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREMA GEL	
Colour		white	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		15.000,0000 - 30.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL: it is hygroscopic and stable under normal conditions; at high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.
CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

SECTION 10. Stability and reactivity. ... / >>

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
1,2-PROPANEDIOL: carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product must be handled carefully because of its possible teratogenic effects, which may reduce human fertility or because of its possible teratogenic effects, which may be toxic and damage the foetus development.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

PIROCTONEOLAMINA
LD50 (Oral). > 2000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit

GLICOLE PROPILENICO
LD50 (Oral). 22000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg rabbit
LC50 (Inhalation). > 317042 mg/l rabbit

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

CYCLOHEXANE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit
LC50 (Inhalation). 13.9 mg/l/4h Rat

pentasodium (carboxylatomethyl)iminobis(ethylenenitrilo)tetraacetate
LD50 (Oral). > 5000 mg/kg rat

pyrithione zinc
LD50 (Oral). 296 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rat
LC50 (Inhalation). 1.03 mg/l Rat

Carcinogenicity Assessment:
79-10-7 ACRYLIC ACID
ACGIH:: A4
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and highly toxic for aquatic organisms.
This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

PIROCTONEOLAMINA

LC50 - for Fish.	1.89 mg/l/96h
EC50 - for Crustacea.	1.8 mg/l/48h
EC50 - for Algae / Aquatic Plants.	10.8 mg/l/72h

GLICOLE PROPILENICO

LC50 - for Fish.	> 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants.	24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea.	13020 mg/l Ceriodaphnia sp. (reproduction or growth_7 d)

CYCLOHEXANE

LC50 - for Fish.	4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	32.7 mg/l/72h Chlorella vulgaris

pentasodium (carboxylatomethyl)iminobis(ethylenenitrilo)tetraacetate

LC50 - for Fish.	1115 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea.	> 500 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	2.6 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish.	750 mg/l Lepomis macrochirus
Chronic NOEC for Crustacea.	67 mg/l Daphnia carinata 18d
Chronic NOEC for Algae / Aquatic Plants.	400 mg/l Scenedesmus quadricauda 23d

pyrithione zinc

LC50 - for Fish.	0.0026 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	0.0082 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

CYCLOHEXANE: not easily biodegradable.

PIROCTONEOLAMINA

Solubility in water.	22.1 mg/l 20°C

Rapidly biodegradable.

GLICOLE PROPILENICO

Rapidly biodegradable.

CYCLOHEXANE

Solubility in water.	mg/l 0.1 - 100

Rapidly biodegradable.

pentasodium (carboxylatomethyl)iminobis(ethylenenitrilo)tetraacetate

Rapidly biodegradable.

pyrithione zinc

Rapidly biodegradable.

12.3. Bioaccumulative potential.

CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

GLICOLE PROPILENICO

Partition coefficient: n-octanol/water.	-1.07 Log KOW
BCF.	0.09 stimato

CYCLOHEXANE

Partition coefficient: n-octanol/water.	3.44

12.4. Mobility in soil.

CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE

Partition coefficient: soil/water.	2.89

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 3082

14.2. UN proper shipping name.

ADR / RID:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
IMDG:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
IATA:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es).

ADR / RID:	Class: 9	Label: 9	
IMDG:	Class: 9	Label: 9	
IATA:	Class: 9	Label: 9	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 90 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-F	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Pass.:	Maximum quantity: 450 L	Packaging instructions: 964
	Special Instructions:	A97, A158, A197	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
79-10-7 ACRYLIC ACID

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
110-82-7 CYCLOHEXANE
79-10-7 ACRYLIC ACID

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
79-10-7 ACRYLIC ACID

EPCRA 313 TRI:
110-82-7 CYCLOHEXANE
79-10-7 ACRYLIC ACID

RCRA Code:
110-82-7 CYCLOHEXANE
79-10-7 ACRYLIC ACID

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICERINA FU 30 BE
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
79-10-7 ACRYLIC ACID

Minnesota:
56-81-5 GLICERINA FU 30 BE

SECTION 15. Regulatory information. ... / >>

57-55-6	GLICOLE PROPILENICO
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

New Jersey:

56-81-5	GLICERINA FU 30 BE
57-55-6	GLICOLE PROPILENICO
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

Pennsylvania:

56-81-5	GLICERINA FU 30 BE
57-55-6	GLICOLE PROPILENICO
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

California:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H361	Suspected of damaging fertility or the unborn child.
H301	Toxic if swallowed.
H331	Toxic if inhaled.
H332	Harmful if inhaled.

SECTION 16. Other information. ... / >>

H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website

SECTION 16. Other information. ... / >>

- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71164/3**
Product name **NATURAL TECH REBALANCING SHAMPOO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Eye irritation, category 2 — Causes serious eye irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H319 Causes serious eye irritation.

Precautionary statements:
Prevention:
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 2. Hazards identification. ... / >>

P337+P313 If eye irritation persists: get medical advice / attention.

Storage:

--

Disposal:

--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	5 - 9	Eye irritation, category 2 H319
Glycine, N-(2-aminoethyl)-N-(2-hydroxyethyl)-, N-C12-20 acyl derivs., monosodium salts		
CAS. 90387-75-0	1 - 5	Eye irritation, category 2 H319
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

CYCLOHEXANE					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		OPALESCENT GEL		
Colour		YELLOWISH		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	1.500,0000 - 3.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.
Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

CYCLOHEXANE

LD50 (Oral).	> 5000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg Rabbit
LC50 (Inhalation).	13.9 mg/l/4h Rat

sodium N-lauroylsarcosinate

LD50 (Oral).	> 5000 mg/kg rat
LC50 (Inhalation).	0.5 mg/l/4h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LD50 (Oral).	8400 mg/kg rat
LD50 (Dermal).	> 2000 mg/kg rat

Carcinogenicity Assessment:
8006-64-2 TURPENTINE
ACGIH:: A4
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

CYCLOHEXANE

LC50 - for Fish.	4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	32.7 mg/l/72h Chlorella vulgaris

sodium N-lauroylsarcosinate

LC50 - for Fish.	56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish.	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea.	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants.	12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability.

Petroleum distillates, charcoal, vegetable extracts: they are mixtures of paraffinic, naphthenic, diterpenic and aromatic hydrocarbons.
Their behaviour on the environment depends on the concentration. In each case use, according to good working practices, avoiding disposal in the environment. As a rule, the product is poorly biodegradable.

CYCLOHEXANE: not easily biodegradable.

CYCLOHEXANE

Solubility in water.	mg/l 0.1 - 100

Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

12.3. Bioaccumulative potential.

CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

CYCLOHEXANE

Partition coefficient: n-octanol/water.	3.44

12.4. Mobility in soil.

CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE

Partition coefficient: soil/water.	2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE

EPCRA 313 TRI:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

RCRA Code:

110-82-7	CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1310-73-2	SODIUM HYDROXIDE
8006-64-2	TURPENTINE
110-82-7	CYCLOHEXANE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1310-73-2	SODIUM HYDROXIDE
8006-64-2	TURPENTINE
110-82-7	CYCLOHEXANE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

New Jersey:

1310-73-2	SODIUM HYDROXIDE
8006-64-2	TURPENTINE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

California:

1310-73-2	SODIUM HYDROXIDE
8006-64-2	TURPENTINE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

SECTION 15. Regulatory information. ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 2	Acute toxicity, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H330	Fatal if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%

SECTION 16. Other information. ... / >>

- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71167**
Product name **NATURAL TECH DETOXIFYING MUD**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Skin sensitization, category 1 — May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H317 May cause an allergic skin reaction.

Precautionary statements:
Prevention:
P261 Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .

SECTION 2. Hazards identification. ... / >>

P321	Specific treatment (see sect.4 on this label).
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
CAS. 54464-57-2	0.1 - 0.5	Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
O.E. EUCALIPTUS OE1027		
CAS. 8000-48-4	0.1 - 0.5	Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

SECTION 5. Firefighting measures. ... / >>

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

SECTION 8. Exposure controls/personal protection. ... / >>

EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAMY		
Colour		DARK GREEN		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		6,8000 - 7,8000		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,1080 - 1,1180	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		4.500,0000 - 8.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

SECTION 10. Stability and reactivity. ... / >>

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
1,2-PROPANEDIOL: carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

GLICOLE PROPILENICO

LD50 (Oral).	22000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg rabbit
LC50 (Inhalation).	> 317042 mg/l rabbit

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral).	> 5000 mg/kg Rat
LD50 (Dermal).	> 5000 mg/kg Rabbit

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

GLICOLE PROPILENICO

LC50 - for Fish.	> 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants.	24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea.	13020 mg/l Ceriodaphnia sp. (reproduction or growth_7 d)

12.2. Persistence and degradability.

GLICOLE PROPILENICO
Rapidly biodegradable.

12.3. Bioaccumulative potential.

GLICOLE PROPILENICO

Partition coefficient: n-octanol/water.	-1.07 Log KOW
BCF.	0.09 stimato

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
57-55-6	GLICOLE PROPILENICO

New Jersey:

57-55-6	GLICOLE PROPILENICO

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
57-55-6	GLICOLE PROPILENICO

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 3	Flammable liquid, category 3
Asp. Tox. 1	Aspiration hazard, category 1
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597

SECTION 16. Other information. ... / >>

- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09 / 11.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71168/3**
Product name **NATURAL TECH DETOXIFYING SCRUB SHAMPOO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.

SECTION 2. Hazards identification. ... / >>

P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see sect.4 on this label).
P333+P313	If skin irritation or rash occurs: get medical advice.
P337+P313	If eye irritation persists: get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	1 - 5	Eye irritation, category 2 H319
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
Glycine, N-(2-aminoethyl)-N-(2-hydroxyethyl)-, N-C12-20 acyl derivs., monosodium salts		
CAS. 90387-75-0	1 - 5	Eye irritation, category 2 H319
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
CAS. 54464-57-2	0.1 - 0.5	Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	OPALESCENT GEL
Colour	light green
Odour	REF. STD.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		12.000,0000 - 20.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.
Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

SILICAMI 200/500

LD50 (Oral).	> 2000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg Rat
LC50 (Inhalation).	> 2.2 mg/l/1h Rat

SECTION 11. Toxicological information. ... / >>

CYCLOHEXANE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit
LC50 (Inhalation). 13.9 mg/l/4h Rat

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 5000 mg/kg Rabbit

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

CYCLOHEXANE
LC50 - for Fish. 4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 32.7 mg/l/72h Chlorella vulgaris

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LC50 - for Fish. > 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea. 14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea. 6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants. 12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability.
CYCLOHEXANE: not easily biodegradable.

CYCLOHEXANE
Solubility in water. mg/l 0.1 - 100
Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

12.3. Bioaccumulative potential.
CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

CYCLOHEXANE
Partition coefficient: n-octanol/water. 3.44

12.4. Mobility in soil.
CYCLOHEXANE: slightly mobile in soil.

SECTION 12. Ecological information. ... / >>

CYCLOHEXANE
Partition coefficient: soil/water. 2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

EPCRA 313 TRI:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

RCRA Code:

110-82-7	CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
7631-86-9	SILICAMI 200/500
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
7631-86-9	SILICAMI 200/500
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

SECTION 15. Regulatory information. ... / >>

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
7631-86-9	SILICAMI 200/500
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

California:

7631-86-9	SILICAMI 200/500
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 2	Acute toxicity, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H330	Fatal if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number

SECTION 16. Other information. ... / >>

- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71170/3**
Product name **NATURAL TECH WELL-BEING SHAMPOO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Serious eye damage, category 1 — Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
Prevention:
P280 Wear protective gloves / eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .

SECTION 2. Hazards identification. ... / >>

Storage:
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Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	5 - 9	Eye irritation, category 2 H319
Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts		
CAS. 68650-39-5	1 - 3	Serious eye damage, category 1 H318
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

CYCLOHEXANE					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID OPAQUE GEL		
Colour		straw-coloured		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	2.700,0000 - 5.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

CYCLOHEXANE

LD50 (Oral).	> 5000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg Rabbit
LC50 (Inhalation).	13.9 mg/l/4h Rat

sodium N-lauroylsarcosinate

LD50 (Oral).	> 5000 mg/kg rat
LC50 (Inhalation).	0.5 mg/l/4h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LD50 (Oral).	8400 mg/kg rat
LD50 (Dermal).	> 2000 mg/kg rat

Carcinogenicity Assessment:

5989-27-5	(R)-p-mentha-1,8-diene
IARC:3	
67-63-0	ALCOOL ISOPROPILICO
IARC:3	

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

SECTION 12. Ecological information. ... / >>

12.1. Toxicity.

CYCLOHEXANE

LC50 - for Fish.	4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	32.7 mg/l/72h Chlorella vulgaris

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts

LC50 - for Fish.	> 10 mg/l/96h
EC50 - for Crustacea.	> 10 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate

LC50 - for Fish.	56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish.	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea.	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants.	12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability.

CYCLOHEXANE: not easily biodegradable.

CYCLOHEXANE

Solubility in water.	mg/l 0.1 - 100

Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

12.3. Bioaccumulative potential.

CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

CYCLOHEXANE

Partition coefficient: n-octanol/water.	3.44

12.4. Mobility in soil.

CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE

Partition coefficient: soil/water.	2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

EPCRA 313 TRI:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

RCRA Code:

110-82-7	CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

New York:

110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

California:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

SECTION 15. Regulatory information. ... / >>

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 2	Acute toxicity, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H330	Fatal if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds

SECTION 16. Other information. ... / >>

- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71173/3A**
Product name **FASE ACQUA NT WB DE STRESS LOT**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		liquid		
Colour		colourless		
Odour		characteristic		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
No component(s) listed.

Minnesota:
No component(s) listed.

New Jersey:
No component(s) listed.

New York:
No component(s) listed.

Pennsylvania:
No component(s) listed.

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)

SECTION 16. Other information. ... / >>

- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71174/3**
Product name **NATURAL TECH WELL-BEING CONDITIONER**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

SECTION 2. Hazards identification. ... / >>

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see sect.4 on this label).
P332+P313	If skin irritation occurs: get medical advice.
P337+P313	If eye irritation persists: get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

--

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAMY		
Colour		white		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		30.000,0000 - 60.000,0000		
Explosive properties		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Oxidising properties — Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.
Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

New Jersey:

56-81-5	GLICERINA FU 30 BE

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

SECTION 15. Regulatory information. ... / >>

International Regulations.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Candadian WHMIS.

Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit

SECTION 16. Other information. ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71176**
Product name **NATURAL TECH WELL-BEING MASSAGE OIL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information.

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

SECTION 8. Exposure controls/personal protection. ... / >>

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		SEMITRANSPARENT LIQUID		
Colour		LIGHT YELLOW		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		4,3000 - 5,3000		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0030 - 1,0130	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		2.000,0000 - 5.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.

SECTION 10. Stability and reactivity. ... / >>

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
1,2-PROPANEDIOL: carbon oxides.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

GLICOLE PROPILENICO

LD50 (Oral).	22000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg rabbit
LC50 (Inhalation).	> 317042 mg/l rabbit

CYCLOHEXANE

LD50 (Oral).	> 5000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg Rabbit
LC50 (Inhalation).	13.9 mg/l/4h Rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

GLICOLE PROPILENICO

LC50 - for Fish.	> 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants.	24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea.	13020 mg/l Ceriodaphnia sp. (reproduction or growth_7 d)

CYCLOHEXANE

LC50 - for Fish.	4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	32.7 mg/l/72h Chlorella vulgaris

12.2. Persistence and degradability.
SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC: tends to be distributed exclusively in the air where it is photodegradable.
The small amount that remains in the water tends to deposit at the bottom and is biodegraded; it is thus not bioaccumulated by fish. In the soil the substance remains absorbed and is unable to reach the subterranean layers.

GLICOLE PROPILENICO
Rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

CYCLOHEXANE
Solubility in water. mg/l 0.1 - 100
Rapidly biodegradable.

12.3. Bioaccumulative potential.
CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

GLICOLE PROPILENICO
Partition coefficient: n-octanol/water. -1.07 Log KOW
BCF. 0.09 stimato

CYCLOHEXANE
Partition coefficient: n-octanol/water. 3.44

12.4. Mobility in soil.
CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE
Partition coefficient: soil/water. 2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
110-82-7 CYCLOHEXANE

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

EPCRA 313 TRI:
110-82-7 CYCLOHEXANE

RCRA Code:
110-82-7 CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

Minnesota:
57-55-6 GLICOLE PROPILENICO
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

New Jersey:
57-55-6 GLICOLE PROPILENICO
1310-73-2 SODIUM HYDROXIDE

SECTION 15. Regulatory information. ... / >>

110-82-7 CYCLOHEXANE

New York:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

Pennsylvania:
57-55-6 GLICOLE PROPILENICO
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

California:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%

SECTION 16. Other information. ... / >>

- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71177**
Product name **NATURAL TECH CALMING SHAMPOO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Eye irritation, category 2 — Causes serious eye irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H319 Causes serious eye irritation.

Precautionary statements:
Prevention:
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 2. Hazards identification. ... / >>

P337+P313 If eye irritation persists: Get medical advice / attention.

Storage:

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Disposal:

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2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	5 - 9	Eye irritation, category 2 H319
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
Glycine, N-(2-aminoethyl)-N-(2-hydroxyethyl)-, N-C12-20 acyl derivs., monosodium salts		
CAS. 90387-75-0	1 - 5	Eye irritation, category 2 H319
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

CYCLOHEXANE					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		OPALESCENT GEL	
Colour		PALE PINK	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		5,0000 - 5,7000	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0200 - 1,0300	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	1.300,0000 - 3.500,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.
Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

CYCLOHEXANE

LD50 (Oral).	> 5000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg Rabbit
LC50 (Inhalation).	13.9 mg/l/4h Rat

sodium N-lauroylsarcosinate

LD50 (Oral).	> 5000 mg/kg rat
LC50 (Inhalation).	0.5 mg/l/4h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LD50 (Oral).	8400 mg/kg rat
LD50 (Dermal).	> 2000 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

SECTION 12. Ecological information. ... / >>

12.1. Toxicity.

CYCLOHEXANE

LC50 - for Fish.	4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	32.7 mg/l/72h Chlorella vulgaris

sodium N-lauroylsarcosinate

LC50 - for Fish.	56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish.	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea.	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants.	12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability.

SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC: tends to be distributed exclusively in the air where it is photodegradable. The small amount that remains in the water tends to deposit at the bottom and is biodegraded; it is thus not bioaccumulated by fish. In the soil the substance remains absorbed and is unable to reach the subterranean layers.

CYCLOHEXANE

Solubility in water.	mg/l 0.1 - 100

Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

12.3. Bioaccumulative potential.

CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

CYCLOHEXANE

Partition coefficient: n-octanol/water.	3.44

12.4. Mobility in soil.

CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE

Partition coefficient: soil/water.	2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

110-82-7	CYCLOHEXANE

SECTION 15. Regulatory information. ... / >>

EPCRA 313 TRI:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

RCRA Code:

110-82-7	CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICERINA FU 30 BE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

Minnesota:

56-81-5	GLICERINA FU 30 BE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New Jersey:

56-81-5	GLICERINA FU 30 BE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New York:

110-82-7	CYCLOHEXANE

Pennsylvania:

56-81-5	GLICERINA FU 30 BE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

California:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 2	Acute toxicity, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2

SECTION 16. Other information. ... / >>

STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H330	Fatal if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

SECTION 16. Other information. ... / >>

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71182**
Product name **NATURAL TECH ENERGIZING SUPERACTIVE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2	Highly flammable liquid and vapour.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.

SECTION 2. Hazards identification. ... / >>

P241	Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: use . . . to extinguish.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
ETHANOL		
CAS. 64-17-5	40 - 60	Flammable liquid, category 2 H225
PROPAN-2-OL		
CAS. 67-63-0	1 - 5	Flammable liquid, category 2 H225, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336
O.E. EUCALIPTUS OE1027		
CAS. 8000-48-4	0.5 - 1	Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

PROPAN-2-OL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	492	200	983	400
OSHA	USA	980	400		
CAL/OSHA	USA	980	400	1225	500
NIOSH	USA	980	400	1225	500

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		TRANSPARENT LIQUID		
Colour		straw-coloured		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		4,5000 - 5,8000		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,8600 - 0,9600	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid.

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

ETHANOL
LD50 (Oral). > 5000 mg/kg Rat
LC50 (Inhalation). 120 mg/l/4h Pimephales promelas

PROPAN-2-OL
LD50 (Oral). 4710 mg/kg Rat
LD50 (Dermal). 12800 mg/kg Rat
LC50 (Inhalation). 72.6 mg/l/4h Rat

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

PROPAN-2-OL
Rapidly biodegradable.

12.3. Bioaccumulative potential.

ETHANOL
Partition coefficient: n-octanol/water. -0.35

PROPAN-2-OL
Partition coefficient: n-octanol/water. 0.05

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1993

14.2. UN proper shipping name.

ADR / RID: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)
IMDG: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)
IATA: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)

14.3. Transport hazard class(es).

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33 Special Provision: 640C	Limited Quantities 1 L	Tunnel restriction code (D/E)
IMDG:	EMS: F-E, S-E	Limited Quantities 1 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3	Packaging instructions: 364 Packaging instructions: 353

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
76-22-2	bornan-2-one
8008-51-3	
56-81-5	Glycerol

Minnesota:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
76-22-2	bornan-2-one
56-81-5	Glycerol

New Jersey:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
76-22-2	bornan-2-one
8008-51-3	
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
76-22-2	bornan-2-one
8008-51-3	
56-81-5	Glycerol

California:

64-17-5	ETHANOL

SECTION 15. Regulatory information. ... / >>

67-63-0 PROPAN-2-OL
76-22-2 bornan-2-one

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Asp. Tox. 1	Aspiration hazard, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
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- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
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- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level

SECTION 16. Other information. ... / >>

- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 09 / 10 / 11 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71183/3**
Product name **NATURAL TECH DETOXIFYING SUPERACTIVE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

SECTION 2. Hazards identification. ... / >>

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see sect.4 on this label).
P332+P313	If skin irritation occurs: get medical advice.
P337+P313	If eye irritation persists: get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
L-ARGININA BASE		
CAS. 74-79-3	1 - 5	Eye irritation, category 2 H319
SODIUM HYDROXIDE		
CAS. 1310-73-2	0.5 - 1	Substance or mixture corrosive to metals, category 1 H290, Skin corrosion, category 1A H314
JAGUAR EXCEL		
CAS. 65497-29-2	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

SECTION 5. Firefighting measures. ... / >>

Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

SODIUM HYDROXIDE					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			2 (C)	
OSHA	USA	2			
CAL/OSHA	USA	2			
NIOSH	USA			2 (C)	

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		OPALESCENT FLUID GEL		
Colour		LIGHT YELLOW		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		3.000,0000 - 5.000,0000		

SECTION 9. Physical and chemical properties. ... / >>

Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.
Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

L-ARGININA BASE

LD50 (Oral).	> 5110 mg/kg rat

GLUCONO-DELTA-LACTONE

LD50 (Oral).	6060 mg/kg rat
LD50 (Dermal).	> 2000 mg/kg rat

SODIUM HYDROXIDE

LD50 (Oral).	1350 mg/kg Rat
LD50 (Dermal).	1350 mg/kg Rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

JAGUAR EXCEL

LC50 - for Fish.	< 1 mg/l/96h

L-ARGININA BASE

LC50 - for Fish.	2800 mg/l/96h
Chronic NOEC for Fish.	1800 mg/l 96h
Chronic NOEC for Crustacea.	< 1000 mg/l Daphnia magna 24h

SECTION 12. Ecological information. ... / >>

GLUCONO-DELTA-LACTONE
LC50 - for Fish. > 100 mg/l/96h Oryzias latipes
EC50 - for Crustacea. > 1000 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

L-ARGININA BASE
Solubility in water. > 10000 mg/l
Rapidly biodegradable.

GLUCONO-DELTA-LACTONE
Rapidly biodegradable.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1824

14.2. UN proper shipping name.

ADR / RID:
IMDG: SODIUM HYDROXIDE SOLUTION
IATA: SODIUM HYDROXIDE SOLUTION

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group.

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 80 Special Provision: -	Limited Quantity 5 L	Tunnel restriction code (E)
IMDG:	EMS: F-A, S-B	Limited Quantity 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
1310-73-2 SODIUM HYDROXIDE

Minnesota:
1310-73-2 SODIUM HYDROXIDE

New Jersey:
1310-73-2 SODIUM HYDROXIDE

New York:
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
1310-73-2 SODIUM HYDROXIDE

California:
1310-73-2 SODIUM HYDROXIDE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Met. Corr. 1	Substance or mixture corrosive to metals, category 1
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road

SECTION 16. Other information. ... / >>

- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

SECTION 16. Other information. ... / >>

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71215**
Product name **NATURAL TECH REPLUMPING hair filler superactive**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Flammable liquid, category 2 — Highly flammable liquid and vapour.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H225 Highly flammable liquid and vapour.

Precautionary statements:
Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground / bond container and receiving equipment.
P241 Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242 Use only non-sparking tools.

SECTION 2. Hazards identification. ... / >>

P243 Take precautionary measures against static discharge.
P280 Wear protective gloves / eye protection / face protection.
Response:
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P370+P378 In case of fire: use . . . to extinguish.
Storage:
P403+P235 Store in a well-ventilated place. Keep cool.
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
ETHANOL		
CAS. 64-17-5	5 - 9	Flammable liquid, category 2 H225

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

ETHANOL					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		liquid		
Colour		white		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		7,5000 - 8,0000		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9860 - 0,9960		Kg/l
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

PANTENOLO D

LD50 (Oral).	> 10000 mg/kg rat

ETHANOL

LD50 (Oral).	> 5000 mg/kg Rat
LC50 (Inhalation).	120 mg/l/4h Pimephales promelas

Carcinogenicity Assessment:

64-17-5	ETHANOL
ACGIH:: A3	
IARC:1	
67-63-0	ALCOOL ISOPROPILICO
IARC:3	
5989-27-5	(R)-p-mentha-1,8-diene
IARC:3	

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.

PANTENOLO D

LC50 - for Fish.	> 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	> 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	> 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish.	> 1000 mg/l 96h
Chronic NOEC for Crustacea.	100 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants.	100 mg/l 72h

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

12.3. Bioaccumulative potential.

PANTENOLO D
Partition coefficient: n-octanol/water. -106 mg/l Log KOW

ETHANOL
Partition coefficient: n-octanol/water. -0.35

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1170

14.2. UN proper shipping name.

ADR / RID: ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IMDG: ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IATA: ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3. Transport hazard class(es).

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group.

ADR / RID, IMDG, IATA: II

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33	Limited Quantities 1 L	Tunnel restriction code (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-D	Limited Quantities 1 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3, A58, A180	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

RCRA Code:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
124-68-5	2-AMINO-2-METHYLPROPANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
124-68-5	2-AMINO-2-METHYLPROPANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
124-68-5	2-AMINO-2-METHYLPROPANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
H225	Highly flammable liquid and vapour.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code

SECTION 16. Other information. ... / >>

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

SECTION 16. Other information. ... / >>

Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 08 / 09 / 10 / 11 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71216/3**
Product name **NT REPL HAIR FILLER PROFES**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information.

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

SECTION 2. Hazards identification. ... / >>

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements: --
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
docosyltrimethylammonium methyl sulphate			
CAS.	*81646-13-1*	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

SECTION 8. Exposure controls/personal protection. ... / >>

EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		LIGHT BEIGE		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		4.500,0000 - 7.500,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

SECTION 10. Stability and reactivity. ... / >>

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:

SECTION 15. Regulatory information. ... / >>

122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
1310-73-2 SODIUM HYDROXIDE
56-81-5 Glycerol

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
1310-73-2 SODIUM HYDROXIDE
56-81-5 Glycerol

New Jersey:
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
56-81-5 Glycerol

New York:
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
112-80-1 ACIDO OLEICO
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
56-81-5 Glycerol

California:
1310-73-2 SODIUM HYDROXIDE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

LEGEND:

SECTION 16. Other information. ... / >>

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.

SECTION 16. Other information. ... / >>

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71218/3**
Product name **NT REPLUMPING SHAMPOO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

SECTION 2. Hazards identification. ... / >>

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	5 - 9	Eye irritation, category 2 H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
Lemon Oil		
CAS. 8008-56-8	0.1 - 0.25	Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
(R)-p-mentha-1,8-diene		
CAS. 5989-27-5	0.1 - 0.25	Flammable liquid, category 3 H226, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

CYCLOHEXANE

CAS. *110-82-7* 0 - 0.25 Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

SECTION 8. Exposure controls/personal protection. ... / >>

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Viscous liquid		
Colour		straw-coloured		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		2.700,0000 - 5.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.
1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

CYCLOHEXANE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit
LC50 (Inhalation). 13.9 mg/l/4h Rat

(R)-p-mentha-1,8-diene
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rabbit

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Lemon Oil
LD50 (Oral). 2840 mg/kg Rat
LD50 (Dermal). > 5000 mg/kg Rabbit

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

SECTION 12. Ecological information. ... / >>

12.1. Toxicity.

CYCLOHEXANE

LC50 - for Fish.	4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	32.7 mg/l/72h Chlorella vulgaris

(R)-p-mentha-1,8-diene

LC50 - for Fish.	0.72 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	0.36 mg/l/48h Daphnia magna

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts

LC50 - for Fish.	1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish.	0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea.	0.32 mg/l 21 d - Daphnia magna (riproduzione)

sodium N-lauroylsarcosinate

LC50 - for Fish.	56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish.	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea.	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants.	12.5 mg/l Desmodesmus subspicatus 72h

Lemon Oil

LC50 - for Fish.	0.3 mg/l/96h
EC50 - for Crustacea.	7.2 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants.	0.4 mg/l/72h

12.2. Persistence and degradability.

CYCLOHEXANE: not easily biodegradable.

CYCLOHEXANE

Solubility in water.	mg/l 0.1 - 100
Rapidly biodegradable.	

(R)-p-mentha-1,8-diene

Solubility in water.	12.3 mg/l
Rapidly biodegradable.	

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

12.3. Bioaccumulative potential.

CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

CYCLOHEXANE

Partition coefficient: n-octanol/water.	3.44

12.4. Mobility in soil.

CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE

Partition coefficient: soil/water.	2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

EPCRA 313 TRI:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

RCRA Code:

110-82-7	CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

New York:

110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

California:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

SECTION 15. Regulatory information. ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 2	Acute toxicity, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H330	Fatal if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%

SECTION 16. Other information. ... / >>

- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71219**
Product name **NATURALTECH REPLUMPING CONDITIONER**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see sect.4 on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

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Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
Lemon Oil		
CAS. 8008-56-8	0.1 - 0.25	Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		3,5000 - 4,5000		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)

SECTION 9. Physical and chemical properties. ... / >>

Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	0,9950 - 1,0150 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	30.000,0000 - 70.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.
Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

SECTION 11. Toxicological information. ... / >>

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

Lemon Oil
LD50 (Oral). 2840 mg/kg Rat
LD50 (Dermal). > 5000 mg/kg Rabbit

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

12.2. Persistence and degradability.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

New Jersey:

56-81-5	GLICERINA FU 30 BE

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H226	Flammable liquid and vapour.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.

SECTION 16. Other information. ... / >>

H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website

SECTION 16. Other information. ... / >>

- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71225**
Product name **NATURAL TECH CALMING SUPERACTIVE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2	Highly flammable liquid and vapour.
Aspiration hazard, category 1	May be fatal if swallowed and enters airways.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.

SECTION 2. Hazards identification. ... / >>

P241 Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves / eye protection / face protection.

Response:
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P331 Do NOT induce vomiting.
P370+P378 In case of fire: use . . . to extinguish.

Storage:
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, acute toxicity, category 1 — Very toxic to aquatic life.
Hazardous to the aquatic environment, chronic toxicity, category 2 — Toxic to aquatic life with long lasting effects.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
P391 Collect spillage.
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.
Repeated exposure may cause skin dryness or cracking.
Additional hazards.
Repeated exposure may cause skin dryness or cracking.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
SILICONE 200/065-BELSIL DM0.65		
CAS. 107-46-0	60 - 100	Flammable liquid, category 2 H225, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

ISODODECANE
CAS. *93685-81-5* 10 - 24 Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Hazardous to the aquatic environment, chronic toxicity, category 4 H413

ETHANOL
CAS. *64-17-5* 9 - 24 Flammable liquid, category 2 H225

HEXAMETHYLDISILOXANE
CAS. *107-46-0* 0 - 0.5 Flammable liquid, category 2 H225, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures. ... / >>

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the

SECTION 8. Exposure controls/personal protection. ... / >>

presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LIQUID		
Colour		LIGHT YELLOW		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,7680 - 0,7780		Kg/l
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

The introduction of even small quantities of this liquid into the respiratory system in case of ingestion or vomit may cause bronchopneumonia and pulmonary edema.
This product may have a degreasing action on the skin, producing dryness and chapped skin after repeated exposure.

ISODODECANE

LD50 (Oral).	> 5000 mg/kg rat
LD50 (Dermal).	> 2000 mg/kg rabbit
LC50 (Inhalation).	> 5.6 mg/l/4h rat

SILICONE 200/065-BELSIL DM0.65

LD50 (Dermal).	> 2000 mg/kg rat
LC50 (Inhalation).	87 mg/l/4h rat

ETHANOL

LD50 (Oral).	> 5000 mg/kg Rat
LC50 (Inhalation).	120 mg/l/4h Pimephales promelas

HEXAMETHYLDISILOXANE

LD50 (Oral).	> 16 mL/kg rat
LD50 (Dermal).	> 2000 mg/kg rat
LC50 (Inhalation).	15956 ppm/4h rat

Carcinogenicity Assessment:

64-17-5	ETHANOL
ACGIH:: A3	
IARC:1	
67-63-0	ALCOOL ISOPROPILICO
IARC:3	
5989-27-5	(R)-p-mentha-1,8-diene
IARC:3	

SECTION 12. Ecological information.

This product is dangerous for the environment and highly toxic for aquatic organisms.
This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity.

ISODODECANE

LC50 - for Fish.	> 1.2 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	> 1.3 mg/l/48h Mobility Daphnia magna
Chronic NOEC for Crustacea.	0.011 mg/l Reproduction Daphnia magna. Duration:21d.

SILICONE 200/065-BELSIL DM0.65

LC50 - for Fish.	3.02 mg/l/96h
EC50 - for Crustacea.	0.93 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.55 mg/l/72h

HEXAMETHYLDISILOXANE

LC50 - for Fish.	0.46 mg/l/96h
EC50 - for Algae / Aquatic Plants.	0.55 mg/l/72h

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

ISODODECANE
Solubility in water. 0.00486 mg/l

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

12.3. Bioaccumulative potential.

SILICONE 200/065-BELSIL DM0.65
Partition coefficient: n-octanol/water. 5.06 Log Kow

ETHANOL
Partition coefficient: n-octanol/water. -0.35

HEXAMETHYLDISILOXANE
Partition coefficient: n-octanol/water. 4.76 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1993

14.2. UN proper shipping name.

ADR / RID: FLAMMABLE LIQUID, N.O.S. (SILICONE 200/065-BELSIL DM0.65; ETHANOL)
IMDG: FLAMMABLE LIQUID, N.O.S. (SILICONE 200/065-BELSIL DM0.65; ETHANOL)
IATA: FLAMMABLE LIQUID, N.O.S. (SILICONE 200/065-BELSIL DM0.65; ETHANOL)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 3	Label: 3	
IMDG:	Class: 3	Label: 3	
IATA:	Class: 3	Label: 3	

14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID:	Environmentally Hazardous.	
IMDG:	Marine Pollutant.	
IATA:	NO	

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33 Special Provision: 640C	Limited Quantities 1 L	Tunnel restriction code (D/E)
IMDG:	EMS: F-E, S-E	Limited Quantities 1 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3	Packaging instructions: 364 Packaging instructions: 353

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
64-17-5 ETHANOL
67-63-0 PROPAN-2-OL

Minnesota:
64-17-5 ETHANOL
67-63-0 PROPAN-2-OL

New Jersey:
64-17-5 ETHANOL
67-63-0 PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:
64-17-5 ETHANOL
67-63-0 PROPAN-2-OL

California:
64-17-5 ETHANOL
67-63-0 PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Asp. Tox. 1	Aspiration hazard, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

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- TWA: Time-weighted average exposure limit
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- ECHA website

SECTION 16. Other information. ... / >>

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 09 / 10 / 11 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **73181**
Product name **MELU SHIELD**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2	Highly flammable liquid and vapour.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.

SECTION 2. Hazards identification. ... / >>

P241	Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: use . . . to extinguish.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
ETHANOL		
CAS. 64-17-5	9 - 24	Flammable liquid, category 2 H225
Amides, C18-unsatd., dimers, hydrogenated, N,N'-bis[3-(dimethylamino)propyl], polymers with di-Me, 3-hydroxypropyl Me siloxanes ethers with polyethylene glycol and polyethylene glycol mono (chloroacetate)		
CAS. 1383435-61-7	0.5 - 1	Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

ETHANOL					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CLEAR LIQUID		
Colour		GREEN - BLUE		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		3,2000 - 4,8000		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9900 - 1,0000		Kg/l
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Oxidising properties Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

ZEMEA PROPANEDIOL

LD50 (Oral).	15000 mg/kg rat
LD50 (Dermal).	> 20000 mg/kg rabbit
LC50 (Inhalation).	> 5 mg/l/4h rat

ETHANOL

LD50 (Oral).	> 5000 mg/kg Rat
LC50 (Inhalation).	120 mg/l/4h Pimephales promelas

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.

ETHANOL

Solubility in water.	mg/l 1000 - 10000

Rapidly biodegradable.

12.3. Bioaccumulative potential.

ETHANOL

Partition coefficient: n-octanol/water.	-0.35

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1170

14.2. UN proper shipping name.

ADR / RID:	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IMDG:	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IATA:	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3. Transport hazard class(es).

ADR / RID:	Class: 3	Label: 3	
IMDG:	Class: 3	Label: 3	
IATA:	Class: 3	Label: 3	

14.4. Packing group.

ADR / RID, IMDG, IATA: II

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33 Special Provision: -	Limited Quantities 1 L	Tunnel restriction code (D/E)
IMDG:	EMS: F-E, S-D	Limited Quantities 1 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A58, A180	Packaging instructions: 364 Packaging instructions: 353

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

RCRA Code:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
3844-45-9	FD&C BLUE N. 1 05601
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
57-55-6	1,2-PROPANEDIOL
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
57-55-6	1,2-PROPANEDIOL
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
57-55-6	1,2-PROPANEDIOL
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

California:

3844-45-9	FD&C BLUE N. 1 05601
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Skin Sens. 1	Skin sensitization, category 1
H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 09 / 10 / 11 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **73274**
Product name **DEHC OI/LOTION**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2	Highly flammable liquid and vapour.
Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

SECTION 2. Hazards identification. ... / >>

P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.
P241	Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: use . . . to extinguish.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, acute toxicity, category 1	Very toxic to aquatic life.
Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

P391	Collect spillage.
	--

Storage:

	--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.
	--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

SECTION 3. Composition/information on ingredients. ... / >>

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
ETHANOL		
CAS. 64-17-5	9 - 24	Flammable liquid, category 2 H225
ALCOOL C12 14		
CAS. 80206-82-2	5 - 9	Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
PROPAN-2-OL		
CAS. 67-63-0	1 - 5	Flammable liquid, category 2 H225, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran		
CAS. 1222-05-5	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
diphenyl ether		
CAS. 101-84-8	0 - 0.5	Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

SECTION 8. Exposure controls/personal protection. ... / >>

PROPAN-2-OL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	492	200	983	400
OSHA	USA	980	400		
CAL/OSHA	USA	980	400	1225	500
NIOSH	USA	980	400	1225	500

diphenyl ether

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OSHA	USA	7	1		
CAL/OSHA	USA	7	1		
NIOSH	USA	7	1		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CLEAR LIQUID		
Colour		ORANGE		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		4,5000 - 5,5000		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Upper explosive limit.	Not available.	
Vapour pressure.	Not available.	
Vapour density	Not available.	
Relative density.	0,9560 - 0,9660	Kg/l
Solubility	Not available.	
Partition coefficient: n-octanol/water	Not available.	
Auto-ignition temperature.	Not available.	
Decomposition temperature.	Not available.	
Viscosity	Not available.	
Explosive properties	Not available.	
Oxidising properties	Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

1,2-PROPANEDIOL: carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

GLICOLE PROPILENICO

LD50 (Oral).	22000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg rabbit
LC50 (Inhalation).	> 317042 mg/l rabbit

ALCOOL C12 14

LD50 (Oral).	> 5000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg Rabbit

ETHANOL

LD50 (Oral).	> 5000 mg/kg Rat
LC50 (Inhalation).	120 mg/l/4h Pimephales promelas

SECTION 11. Toxicological information. ... / >>

PROPAN-2-OL
LD50 (Oral). 4710 mg/kg Rat
LD50 (Dermal). 12800 mg/kg Rat
LC50 (Inhalation). 72.6 mg/l/4h Rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

diphenyl ether
LD50 (Oral). 2830 mg/kg

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and highly toxic for aquatic organisms.
This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

GLICOLE PROPILENICO
LC50 - for Fish. > 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. 18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants. 24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea. 13020 mg/l Ceriodaphnia sp. (reproduction or growth_7 d)

ALCOOL C12 14
LC50 - for Fish. 1.01 mg/l/96h
EC50 - for Crustacea. > 0.765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants. 0.66 mg/l/72h

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LC50 - for Fish. 0.452 mg/l/96h
EC50 - for Crustacea. 0.47 mg/l/48h
EC50 - for Algae / Aquatic Plants. > 0.854 mg/l/72h Pseudokirchnerella subcapitata

diphenyl ether
LC50 - for Fish. 4.2 mg/l/96h
EC50 - for Algae / Aquatic Plants. > 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Crustacea. 1 mg/l 48h

12.2. Persistence and degradability.

GLICOLE PROPILENICO
Rapidly biodegradable.

ALCOOL C12 14
Solubility in water. 1.3 mg/l 20°C

SECTION 12. Ecological information. ... / >>

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

PROPAN-2-OL
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

diphenyl ether
Solubility in water. 18 mg/l a 25°C
Rapidly biodegradable.

12.3. Bioaccumulative potential.

GLICOLE PROPILENICO
Partition coefficient: n-octanol/water. -1.07 Log KOW
BCF. 0.09 stimato

ALCOOL C12 14
Partition coefficient: n-octanol/water. 5.4

ETHANOL
Partition coefficient: n-octanol/water. -0.35

PROPAN-2-OL
Partition coefficient: n-octanol/water. 0.05

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

diphenyl ether
Partition coefficient: n-octanol/water. 4.21 a 25°C

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1993

14.2. UN proper shipping name.

ADR / RID: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)
IMDG: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL; ALCOOL C12 14)
IATA: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 3	Label: 3	
IMDG:	Class: 3	Label: 3	
IATA:	Class: 3	Label: 3	

14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID:	Environmentally Hazardous.	
IMDG:	Marine Pollutant.	
IATA:	NO	

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33 Special Provision: 640C	Limited Quantities 1 L	Tunnel restriction code (D/E)
IMDG:	EMS: F-E, S-E	Limited Quantities 1 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3	Packaging instructions: 364 Packaging instructions: 353

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

Minnesota:

57-55-6	GLICOLE PROPILENICO
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

New Jersey:

57-55-6	GLICOLE PROPILENICO
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

New York:
No component(s) listed.

Pennsylvania:

57-55-6	GLICOLE PROPILENICO
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether
119-36-8	methyl salicylate

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

SECTION 15. Regulatory information. ... / >>

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level

SECTION 16. Other information. ... / >>

- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 09 / 10 / 11 / 12 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **73277**
Product name **DEHC OI/SERUM**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Flammable liquid, category 2 — Highly flammable liquid and vapour.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H225 Highly flammable liquid and vapour.

Precautionary statements:
Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground / bond container and receiving equipment.
P241 Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242 Use only non-sparking tools.

SECTION 2. Hazards identification. ... / >>

P243 Take precautionary measures against static discharge.
P280 Wear protective gloves / eye protection / face protection.
Response:
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P370+P378 In case of fire: use . . . to extinguish.
Storage:
P403+P235 Store in a well-ventilated place. Keep cool.
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
ETHANOL		
CAS. 64-17-5	40 - 60	Flammable liquid, category 2 H225
PROPAN-2-OL		
CAS. 67-63-0	1 - 5	Flammable liquid, category 2 H225, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336
ALCOOL C12 14		
CAS. 80206-82-2	1 - 5	Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
cetrimonium chloride		
CAS. 112-02-7	0.25 - 0.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully.
Get medical advice/attention.

SECTION 4. First aid measures. ... / >>

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

SECTION 7. Handling and storage. ... / >>

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

PROPAN-2-OL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	492	200	983	400
OSHA	USA	980	400		
CAL/OSHA	USA	980	400	1225	500
NIOSH	USA	980	400	1225	500

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		liquid		
Colour		yellow		
Odour		characteristic		
Odour threshold.		Not available.		
pH.		6,5 - 7,5		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0.917	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

The vapours may also form explosive mixtures with the air.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.

10.4. Conditions to avoid.

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

1,2-PROPANEDIOL: carbon oxides.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

SECTION 11. Toxicological information. ... / >>

11.1. Information on toxicological effects.

GLICOLE PROPILENICO
LD50 (Oral). 22000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg rabbit
LC50 (Inhalation). > 317042 mg/l rabbit

ALCOOL C12 14
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit

ETHANOL
LD50 (Oral). > 5000 mg/kg Rat
LC50 (Inhalation). 120 mg/l/4h Pimephales promelas

PROPAN-2-OL
LD50 (Oral). 4710 mg/kg Rat
LD50 (Dermal). 12800 mg/kg Rat
LC50 (Inhalation). 72.6 mg/l/4h Rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

GLICOLE PROPILENICO
LC50 - for Fish. > 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. 18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants. 24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea. 13020 mg/l Ceriodaphnia sp. (reproduction or growth_7 d)

ALCOOL C12 14
LC50 - for Fish. 1.01 mg/l/96h
EC50 - for Crustacea. > 0.765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants. 0.66 mg/l/72h

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

12.2. Persistence and degradability.

GLICOLE PROPILENICO
Rapidly biodegradable.

ALCOOL C12 14
Solubility in water. 1.3 mg/l 20°C

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

PROPAN-2-OL
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

GLICOLE PROPILENICO
Partition coefficient: n-octanol/water. -1.07 Log KOW
BCF. 0.09 stimato

ALCOOL C12 14
Partition coefficient: n-octanol/water. 5.4

ETHANOL
Partition coefficient: n-octanol/water. -0.35

PROPAN-2-OL
Partition coefficient: n-octanol/water. 0.05

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1993

14.2. UN proper shipping name.

ADR / RID: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)
IMDG: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)
IATA: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 3	Label: 3	
IMDG:	Class: 3	Label: 3	
IATA:	Class: 3	Label: 3	

14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33 Special Provision: 640C	Limited Quantities 1 L	Tunnel restriction code (D/E)
IMDG:	EMS: F-E, S-E	Limited Quantities 1 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3	Packaging instructions: 364 Packaging instructions: 353

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

Minnesota:

57-55-6	GLICOLE PROPILENICO
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

New Jersey:

57-55-6	GLICOLE PROPILENICO
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

New York:
No component(s) listed.

Pennsylvania:

57-55-6	GLICOLE PROPILENICO
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether
119-36-8	methyl salicylate

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:

SECTION 15. Regulatory information. ... / >>

None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 3	Acute toxicity, category 3
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.

SECTION 16. Other information. ... / >>

- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 08 / 09 / 10 / 11 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **73310/3**
Product name **DEHC OI CONDITIONER SF 1000ML**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P321 Specific treatment (see sect.4 on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
decamethylcyclopentasiloxane		
CAS. 541-02-6	1 - 5	
docosyltrimethylammonium methyl sulphate		
CAS. 81646-13-1	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

decamethylcyclopentasiloxane					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	0	10	0	0

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		2.500,0000 - 7.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

UVINUL MC 80 / ACESORB OMC
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 0.511 mg/l/4h

PANTENOLO D
LD50 (Oral). > 10000 mg/kg rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

decamethylcyclopentasiloxane
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 8.67 mg/l/4h

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

UVINUL MC 80 / ACESORB OMC
LC50 - for Fish. > 100 mg/l/96h Cyprinus carpio
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Pseudokirchneriella subcapitata

PANTENOLO D
LC50 - for Fish. > 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish. > 1000 mg/l 96h
Chronic NOEC for Crustacea. 100 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 100 mg/l 72h

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

SECTION 12. Ecological information. ... / >>

decamethylcyclopentasiloxane

LC50 - for Fish.	> 16 mg/l/96h
EC50 - for Crustacea.	> 2.9 mg/l/48h
EC10 for Algae / Aquatic Plants.	> 12 mg/l/72h 96 h
Chronic NOEC for Fish.	> 14 mg/l 90 d
Chronic NOEC for Crustacea.	> 15 mg/l 21 d

docosyltrimethylammonium methyl sulphate

LC50 - for Fish.	0.5 mg/l/96h
EC50 - for Crustacea.	1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish.	0.24 mg/l

12.2. Persistence and degradability.

UVINUL MC 80 / ACESORB OMC
Solubility in water. 0.041 mg/l

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

decamethylcyclopentasiloxane
Solubility in water. < 0.1 mg/l

octadecan-1-ol
Rapidly biodegradable.

docosyltrimethylammonium methyl sulphate
Solubility in water. 7 mg/l

12.3. Bioaccumulative potential.

PANTENOLO D
Partition coefficient: n-octanol/water. -106 mg/l Log KOW

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

New Jersey:

56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether
119-36-8	methyl salicylate

California:

67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2

SECTION 16. Other information. ... / >>

Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition

SECTION 16. Other information. ... / >>

- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **74010/3**
Product name **AUTHENTIC CLEANSING NECTAR**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Serious eye damage, category 1 — Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
Prevention:
P280 Wear protective gloves / eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .

SECTION 2. Hazards identification. ... / >>

Storage:
--
Disposal:
--

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
D-Glucopyranose, oligomeric, C8-10 glycosides		
CAS. 68515-73-1	5 - 9	Serious eye damage, category 1 H318
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS. 110615-47-9	1 - 3	Serious eye damage, category 1 H318, Skin irritation, category 2 H315
COMPERLAN IP		
CAS. 1335203-30-9	1 - 3	Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Fatty acids, coco, 2-sulfoethyl esters, sodium salts		
CAS. 61789-32-0	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
Acetic acid, chloro-, sodium salt, reaction products with 4,5-dihydro-2-undecyl-1H-imidazole-1-ethanol and sodium hydroxide		
CAS. 68608-66-2	1 - 5	Eye irritation, category 2 H319
Ethanesulfonic acid, 2-(methylamino)-, N-coco acyl derivs., sodium salts		
CAS. 61791-42-2	1 - 3	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
JAGUAR EXCEL		
CAS. 65497-29-2	0.25 - 0.5	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SECTION 4. First aid measures. ... / >>

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CLEAR LIQUID		
Colour		yellow		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	500 - 900 mPa s
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

COMPERLAN IP
LD50 (Oral). > 2006 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
LD50 (Oral). > 2000 mg/kg rat

Ethanesulfonic acid, 2-(methylamino)-, N-coco acyl derivs., sodium salts
LD50 (Oral). > 2000 mg/kg rat
LC50 (Inhalation). > 2000 mg/kg rat

Acetic acid, chloro-, sodium salt, reaction products with 4,5-dihydro-2-undecyl-1H-imidazole-1-ethanol and sodium hydroxide
LD50 (Oral). 3422 mg/kg rat
LD50 (Dermal). > 2612 mg/kg rat

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

D-Glucopyranose, oligomeric, C8-10 glycosides
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

JAGUAR EXCEL

LC50 - for Fish.	< 1 mg/l/96h

COMPERLAN IP

LC50 - for Fish.	5.251 mg/l/96h valore stimato
EC50 - for Crustacea.	3.7 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	> 9.4 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
EC10 for Algae / Aquatic Plants.	2.3 mg/l/72h 72h - Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish.	0.32 mg/l 28d - Oncorhynchus mykiss
Chronic NOEC for Crustacea.	0.07 mg/l 21d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	1 mg/l 72h - Pseudokirchnerella subcapitata

Fatty acids, coco, 2-sulfoethyl esters, sodium salts

LC50 - for Fish.	> 25 mg/l/96h
EC50 - for Crustacea.	> 32 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	> 1.87 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Crustacea.	> 32 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	> 0.31 mg/l Pseudokirchnerella subcapitata 72h

Ethanesulfonic acid, 2-(methylamino)-, N-coco acyl derivs., sodium salts

LC50 - for Fish.	5.04 mg/l/96h Danio rerio
EC50 - for Crustacea.	4.6 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	> 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	4 mg/l Daphnia magna 21d
Chronic NOEC for Algae / Aquatic Plants.	> 10 mg/l Desmodesmus subspicatus 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish.	2.95 mg/l/96h
EC50 - for Algae / Aquatic Plants.	12.5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish.	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea.	1 mg/l Daphnia magna

D-Glucopyranose, oligomeric, C8-10 glycosides

LC50 - for Fish.	126 mg/l/96h Danio rerio
EC50 - for Crustacea.	> 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	27.22 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish.	1 mg/l Danio rerio
Chronic NOEC for Crustacea.	1 mg/l Daphnia magna 21d

12.2. Persistence and degradability.

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
Solubility in water. 102 mg/l a 23°C e pH 7
Rapidly biodegradable.

Ethanesulfonic acid, 2-(methylamino)-, N-coco acyl derivs., sodium salts
Rapidly biodegradable.

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water. > 200000 mg/l a 20°C
Rapidly biodegradable.

D-Glucopyranose, oligomeric, C8-10 glycosides
Rapidly biodegradable.

12.3. Bioaccumulative potential.

SECTION 12. Ecological information. ... / >>

COMPERLAN IP
Partition coefficient: n-octanol/water. 3.77

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
Partition coefficient: n-octanol/water. < -1.8 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

New Jersey:

56-81-5	GLICERINA FU 30 BE

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act

SECTION 16. Other information. ... / >>

- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **74011/3**
Product name **AUTHENTIC MOISTURIZING BALM**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P321 Specific treatment (see sect.4 on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
docosyltrimethylammonium methyl sulphate		
CAS. 81646-13-1	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM
Colour	white
Odour	REF. STD.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		25.000,0000 - 50.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

SABONALC16-C18 / CETILSTEARIL.

LD50 (Oral).	> 2000 mg/kg rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral).	3190 mg/kg rat
LD50 (Dermal).	3342 mg/kg coniglio
LC50 (Inhalation).	> 6 mg/l/1h rat

SECTION 11. Toxicological information. ... / >>

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

COCO-CAPRYLATE
LD50 (Oral). > 5000 mg/kg

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

docosyltrimethylammonium methyl sulphate
LC50 - for Fish. 0.5 mg/l/96h
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.24 mg/l

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

octadecan-1-ol
Rapidly biodegradable.

docosyltrimethylammonium methyl sulphate
Solubility in water. 7 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-63-0 PROPAN-2-OL

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-63-0 PROPAN-2-OL

New Jersey:
56-81-5 GLICERINA FU 30 BE
67-63-0 PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-63-0 PROPAN-2-OL

California:
67-63-0 PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.

Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

SECTION 16. Other information. ... / >>

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **74012**
Product name **AUTHENTIC NOURISHING OIL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Skin sensitization, category 1 — May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H317 May cause an allergic skin reaction.

Precautionary statements:
Prevention:
P261 Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .

SECTION 2. Hazards identification. ... / >>

P321 Specific treatment (see sect.4 on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Lemon Oil		
CAS. 8008-56-8	0.1 - 0.25	Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

SECTION 4. First aid measures. ... / >>

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CLEAR LIQUID	
Colour		yellow	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9100 - 0,9200	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		Not available.	
Explosive properties		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Oxidising properties Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

OLIO DI SESAMO BIOLOGICO
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

SECTION 12. Ecological information. ... / >>

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
No component(s) listed.

Minnesota:
No component(s) listed.

New Jersey:
No component(s) listed.

New York:
No component(s) listed.

Pennsylvania:
No component(s) listed.

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 3	Flammable liquid, category 3
Asp. Tox. 1	Aspiration hazard, category 1
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)

SECTION 16. Other information. ... / >>

- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 08 / 09 / 11 / 12.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **74013**
Product name **AUTHENTIC REPLENISHING BUTTER**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		OPAQUE VISCOUS CREAM	
Colour		white	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		4,5000 - 5,3000	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9750 - 0,9850	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	100.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

New Jersey:

56-81-5	GLICERINA FU 30 BE

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code

SECTION 16. Other information. ... / >>

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

SECTION 16. Other information. ... / >>

Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75000/3**
Product name **DEHC NOUNOU SH SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Serious eye damage, category 1 — Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
Prevention:
P280 Wear protective gloves / eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .

SECTION 2. Hazards identification. ... / >>

Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
Disodium Laureth Sulfosuccinate		
CAS. 39354-45-5	1 - 5	Eye irritation, category 2 H319
Fatty acids, coco, 2-sulfoethyl esters, sodium salts		
CAS. 61789-32-0	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	1 - 5	Eye irritation, category 2 H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
dodecan-1-ol		
CAS. 112-53-8	0 - 0.5	Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	OPAQUE VISCOUS FLUID
Colour	beige
Odour	REF. STD.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		3.000,0000 - 6.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.
1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

SECTION 11. Toxicological information. ... / >>

CYCLOHEXANE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit
LC50 (Inhalation). 13.9 mg/l/4h Rat

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

Disodium Laureth Sulfosuccinate
LD50 (Oral). > 2000 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

CYCLOHEXANE
LC50 - for Fish. 4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 32.7 mg/l/72h Chlorella vulgaris

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LC50 - for Fish. 1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea. 0.32 mg/l 21 d - Daphnia magna (riproduzione)

dodecan-1-ol
LC50 - for Fish. 1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

Disodium Laureth Sulfosuccinate
LC50 - for Fish. > 1 mg/l/96h
EC50 - for Crustacea. > 1 mg/l/48h Daphnia magna

SECTION 12. Ecological information. ... / >>

sodium N-lauroylsarcosinate

LC50 - for Fish.	56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish.	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea.	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants.	12.5 mg/l Desmodesmus subspicatus 72h

Fatty acids, coco, 2-sulfoethyl esters, sodium salts

LC50 - for Fish.	> 25 mg/l/96h
EC50 - for Crustacea.	> 32 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	> 1.87 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Crustacea.	> 32 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	> 0.31 mg/l Pseudokirchnerella subcapitata 72h

12.2. Persistence and degradability.

CYCLOHEXANE: not easily biodegradable.

CYCLOHEXANE

Solubility in water.	mg/l 0.1 - 100

Rapidly biodegradable.

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

dodecan-1-ol

Solubility in water.	1 mg/l

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

Fatty acids, coco, 2-sulfoethyl esters, sodium salts

Solubility in water.	102 mg/l a 23°C e pH 7

Rapidly biodegradable.

12.3. Bioaccumulative potential.

CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

CYCLOHEXANE

Partition coefficient: n-octanol/water.	3.44

dodecan-1-ol

Partition coefficient: n-octanol/water.	5.36 log Pow

Fatty acids, coco, 2-sulfoethyl esters, sodium salts

Partition coefficient: n-octanol/water.	< -1.8 Log KOW

12.4. Mobility in soil.

CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE

Partition coefficient: soil/water.	2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

EPCRA 313 TRI:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

RCRA Code:

110-82-7	CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol
65-85-0	benzoic acid

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New Jersey:

56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
138-86-3	DIPENTENE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol
65-85-0	benzoic acid

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol
65-85-0	benzoic acid

California:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 2	Acute toxicity, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H330	Fatal if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)

SECTION 16. Other information. ... / >>

- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

SECTION 16. Other information. ... / >>

The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75004/3**
Product name **DEHC NOUNOU COND SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
TINOGARD TL		
CAS. 125304-04-3	1 - 5	Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated		
CAS. 106842-44-8	0.1 - 0.5	Eye irritation, category 2 H319, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

dodecan-1-ol
CAS. *112-53-8* 0 - 0.5 Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM	
Colour		beige	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles,

SECTION 11. Toxicological information. ... / >>

pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

LANETTE 22
LD50 (Oral). > 2000 mg/kg rat

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

TINOGARD TL
LD50 (Oral). > 2000 mg/kg rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

LANETTE 22
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio

TINOGARD TL
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio
EC50 - for Algae / Aquatic Plants. > 5 mg/l/72h Scenedesmus sp.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

SECTION 12. Ecological information. ... / >>

dodecan-1-ol
LC50 - for Fish. 1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated
EC50 - for Crustacea. 11 mg/l/48h

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

dodecan-1-ol
Solubility in water. 1 mg/l

12.3. Bioaccumulative potential.

TINOGARD TL
Partition coefficient: n-octanol/water. 8.9 Log KOW

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

dodecan-1-ol
Partition coefficient: n-octanol/water. 5.36 log Pow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICERINA FU 30 BE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
138-86-3	DIPENTENE
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL
68334-28-1	Oils, vegetable, hydrogenated

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.

SECTION 16. Other information. ... / >>

H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website

SECTION 16. Other information. ... / >>

- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75005/3**
Product name **DEHC NOUNOU COND PROF SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
TINOGARD TL		
CAS. 125304-04-3	1 - 5	Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated		
CAS. 106842-44-8	0.1 - 0.5	Eye irritation, category 2 H319, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

dodecan-1-ol
CAS. *112-53-8* 0 - 0.5 Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM	
Colour		beige	
Odour		Ref. Std.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		20.000,0000 - 38.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles,

SECTION 11. Toxicological information. ... / >>

pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

LANETTE 22
LD50 (Oral). > 2000 mg/kg rat

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

TINOGARD TL
LD50 (Oral). > 2000 mg/kg rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

LANETTE 22
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio

TINOGARD TL
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio
EC50 - for Algae / Aquatic Plants. > 5 mg/l/72h Scenedesmus sp.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

SECTION 12. Ecological information. ... / >>

dodecan-1-ol

LC50 - for Fish.	1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated

EC50 - for Crustacea.	11 mg/l/48h

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride

Solubility in water.	240 mg/l

dodecan-1-ol

Solubility in water.	1 mg/l

12.3. Bioaccumulative potential.

TINOGARD TL

Partition coefficient: n-octanol/water.	8.9 Log KOW

cetrimonium chloride

Partition coefficient: n-octanol/water.	3.08 Log Kow

dodecan-1-ol

Partition coefficient: n-octanol/water.	5.36 log Pow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICERINA FU 30 BE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
138-86-3	DIPENTENE
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL
68334-28-1	Oils, vegetable, hydrogenated

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.

SECTION 16. Other information. ... / >>

H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website

SECTION 16. Other information. ... / >>

- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**75008/3**
Product name	**DEHC NOUNOU PACK SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
TINOGARD TL		
CAS. 125304-04-3	1 - 5	Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated		
CAS. 106842-44-8	0.1 - 0.5	Eye irritation, category 2 H319, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

dodecan-1-ol
CAS. *112-53-8* 0 - 0.5 Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM		
Colour		DARK BEIGE		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		50.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles,

SECTION 11. Toxicological information. ... / >>

pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

LANETTE 22
LD50 (Oral). > 2000 mg/kg rat

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

TINOGARD TL
LD50 (Oral). > 2000 mg/kg rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

LANETTE 22
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio

TINOGARD TL
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio
EC50 - for Algae / Aquatic Plants. > 5 mg/l/72h Scenedesmus sp.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

SECTION 12. Ecological information. ... / >>

dodecan-1-ol

LC50 - for Fish.	1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated

EC50 - for Crustacea.	11 mg/l/48h

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride

Solubility in water.	240 mg/l

dodecan-1-ol

Solubility in water.	1 mg/l

12.3. Bioaccumulative potential.

TINOGARD TL

Partition coefficient: n-octanol/water.	8.9 Log KOW

cetrimonium chloride

Partition coefficient: n-octanol/water.	3.08 Log Kow

dodecan-1-ol

Partition coefficient: n-octanol/water.	5.36 log Pow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICERINA FU 30 BE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
138-86-3	DIPENTENE
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

SECTION 16. Other information. ... / >>

H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

SECTION 16. Other information. ... / >>

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75009/3**
Product name **DEHC NOUNOU PACK PROF SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
TINOGARD TL		
CAS. 125304-04-3	1 - 5	Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated		
CAS. 106842-44-8	0.1 - 0.5	Eye irritation, category 2 H319, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

dodecan-1-ol
CAS. *112-53-8* 0 - 0.5 Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM		
Colour		STRONG BEIGE		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		20.000,0000 - 38.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles,

SECTION 11. Toxicological information. ... / >>

pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

LANETTE 22
LD50 (Oral). > 2000 mg/kg rat

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

TINOGARD TL
LD50 (Oral). > 2000 mg/kg rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

LANETTE 22
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio

TINOGARD TL
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio
EC50 - for Algae / Aquatic Plants. > 5 mg/l/72h Scenedesmus sp.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

SECTION 12. Ecological information. ... / >>

dodecan-1-ol
LC50 - for Fish. 1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated
EC50 - for Crustacea. 11 mg/l/48h

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

dodecan-1-ol
Solubility in water. 1 mg/l

12.3. Bioaccumulative potential.

TINOGARD TL
Partition coefficient: n-octanol/water. 8.9 Log KOW

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

dodecan-1-ol
Partition coefficient: n-octanol/water. 5.36 log Pow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICERINA FU 30 BE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
138-86-3	DIPENTENE
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

SECTION 16. Other information. ... / >>

H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

SECTION 16. Other information. ... / >>

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75011**
Product name **MOMO SHAMPOO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts		
CAS. 68439-57-6	5 - 9	Serious eye damage, category 1 H318, Skin irritation, category 2 H315
GALAXY LAPAO		
CAS. 866889-72-7	1 - 3	Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	1 - 5	Eye irritation, category 2 H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
JAGUAR EXCEL		
CAS. 65497-29-2	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
CAS. 54464-57-2	0.1 - 0.5	Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
METHANOL		
CAS. 67-56-1	0 - 0.5	Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	262	200	328	250	
OEL	EU	260	200			SKIN.
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN.
NIOSH	USA	260	200	325	250	SKIN.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	TRANSPARENT FLUID
Colour	green
Odour	REF. STD.
Odour threshold.	Not available.
pH.	5,4000 - 5,8000
Melting point / freezing point.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0330 - 1,0430	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		2.000,0000 - 6.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).
1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.

SECTION 11. Toxicological information. ... / >>

CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

GALAXY LAPAO
LD50 (Oral). > 2000 mg/kg Rat
LD50 (Dermal). > 2174 mg/kg Rat

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 5000 mg/kg Rabbit

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts
LD50 (Oral). 2079 mg/kg rat (male/female)
LD50 (Dermal). > 6300 mg/kg rabbit
LC50 (Inhalation). > 52 mg/l/4h rat

Carcinogenicity Assessment:
91-64-5 coumarin
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

JAGUAR EXCEL
LC50 - for Fish. < 1 mg/l/96h

GALAXY LAPAO
LC50 - for Fish. 18 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. 16 mg/l/48h Daphnia magna (mobility)
Chronic NOEC for Fish. 14 mg/l Oncorhynchus mykiss (96h)
Chronic NOEC for Crustacea. 4.3 mg/l Mobility Daphnia magna (48h)

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LC50 - for Fish. 1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea. 0.32 mg/l 21 d - Daphnia magna (riproduzione)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LC50 - for Fish. 1.3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea. 1.38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants. > 2.6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish. 0.3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea. 0.448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants. 2.6 mg/l 72h

SECTION 12. Ecological information. ... / >>

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish.	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea.	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants.	12.5 mg/l Desmodesmus subspicatus 72h

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts

LC50 - for Fish.	4.2 mg/l/96h Danio rerio
EC50 - for Crustacea.	4.53 mg/l/48h Ceriodaphnia sp.
EC50 - for Algae / Aquatic Plants.	5.2 mg/l/72h Skeletonema costatum
EC10 for Algae / Aquatic Plants.	3.9 mg/l/72h 72 h - Skeletonema costatum
Chronic NOEC for Crustacea.	6.3 mg/l 21d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	3.2 mg/l 72h - Skeletonema costatum

12.2. Persistence and degradability.

GALAXY LAPAO

Solubility in water.	346900 mg/l 20°C
Rapidly biodegradable.	

METHANOL

Solubility in water.	mg/l 1000 - 10000
Rapidly biodegradable.	

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water.	2.68 mg/l
Rapidly biodegradable.	

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts

Solubility in water.	292000 mg/l a 20°C
Rapidly biodegradable.	

12.3. Bioaccumulative potential.

METHANOL

Partition coefficient: n-octanol/water.	-0.77
BCF.	0.2

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts

Partition coefficient: n-octanol/water.	-1.3
BCF.	70.8

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
67-56-1 METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-56-1 METHANOL

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL

EPCRA 313 TRI:

67-56-1	METHANOL

RCRA Code:

67-56-1	METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL

New Jersey:

1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL

New York:

1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL

California:

1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL
91-64-5	coumarin

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

67-56-1	METHANOL D

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

SECTION 16. Other information. ... / >>

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**75015/3**
Product name	**DEHC MOMO COND SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice if you feel unwell.
P321	Specific treatment (see sect.4 on this label).
P333+P313	If skin irritation or rash occurs: get medical advice.
P337+P313	If eye irritation persists: get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
dodecan-1-ol		
CAS. 112-53-8	0 - 0.5	Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS. *54464-57-2* 0.1 - 0.5 Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM	
Colour		green	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		30.000,0000 - 85.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.
Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

LANETTE 22
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 5000 mg/kg Rabbit

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3
91-64-5 coumarin
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

LANETTE 22
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-63-0 PROPAN-2-OL

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-63-0 PROPAN-2-OL

New Jersey:
56-81-5 GLICERINA FU 30 BE
67-63-0 PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-63-0 PROPAN-2-OL

SECTION 15. Regulatory information. ... / >>

California:

67-63-0	PROPAN-2-OL
91-64-5	coumarin

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals

SECTION 16. Other information. ... / >>

- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75016/3**
Product name **DEHC MOMO COND PROF SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice if you feel unwell.
P321	Specific treatment (see sect.4 on this label).
P333+P313	If skin irritation or rash occurs: get medical advice.
P337+P313	If eye irritation persists: get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
dodecan-1-ol		
CAS. 112-53-8	0 - 0.5	Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	LUCID CREAM
Colour	green
Odour	Ref. Std.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		20.000,0000 - 38.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.
Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

LANETTE 22
LD50 (Oral). > 2000 mg/kg rat

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3
91-64-5 coumarin
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

LANETTE 22
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride

SECTION 12. Ecological information. ... / >>

Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

California:

67-63-0	PROPAN-2-OL
91-64-5	coumarin

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level

SECTION 16. Other information. ... / >>

- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75018**
Product name **DEHC MOMO POTION SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Skin sensitization, category 1 — May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H317 May cause an allergic skin reaction.

Precautionary statements:
Prevention:
P261 Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P363 Wash contaminated clothing before reuse.
Storage:

SECTION 2. Hazards identification. ... / >>

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS.. 68607-24-9	0 - 0.5	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Laurdimonium Hydroxypropyl Hydrolyzed Wheat Protein		
CAS. 130381-06-5	0 - 0.5	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
VITAMINA E/DL-ALPHA-TOCOPHEROL		
CAS. 10191-41-0	0.1 - 0.5	Skin sensitization, category 1 H317
Copolymer of acrylic acid with cationic acrylic derivative		
CAS. 154245-39-3	0 - 0.5	Hazardous to the aquatic environment, chronic toxicity, category 2 H411
JAGUAR EXCEL		
CAS. 65497-29-2	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

SECTION 5. Firefighting measures. .../>>

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

SECTION 8. Exposure controls/personal protection. ... / >>

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134).
In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM	
Colour		GREEN/YELLOW	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		5,0000 - 5,7000	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0050 - 1,0150	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		4.000,0000 - 8.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

PANTENOLO D
LD50 (Oral). > 10000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
91-64-5 coumarin
IARC:3
88-12-0 1-vinyl-2-pyrrolidone
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

JAGUAR EXCEL
LC50 - for Fish. < 1 mg/l/96h

PANTENOLO D
LC50 - for Fish. > 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish. > 1000 mg/l 96h
Chronic NOEC for Crustacea. 100 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 100 mg/l 72h

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

SECTION 12. Ecological information. ... / >>

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

12.3. Bioaccumulative potential.

PANTENOLO D
Partition coefficient: n-octanol/water. -106 mg/l Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):

SECTION 15. Regulatory information. ... / >>

122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
64-17-5 ETHANOL
67-63-0 PROPAN-2-OL

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
64-17-5 ETHANOL
67-63-0 PROPAN-2-OL

New Jersey:
56-81-5 GLICERINA FU 30 BE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
64-17-5 ETHANOL
67-63-0 PROPAN-2-OL
88-12-0

New York:
No component(s) listed.

Pennsylvania:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE

SECTION 15. Regulatory information. ... / >>

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
25265-71-8	oxydipropanol

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
91-64-5	coumarin

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods

SECTION 16. Other information. .../>>

- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75019/3**
Product name **DEHC DEDE SH SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / eye protection / face protection.

SECTION 2. Hazards identification. ... / >>

Response:

P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER / doctor / . . .

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts		
CAS. 68439-57-6	5 - 9	Serious eye damage, category 1 H318, Skin irritation, category 2 H315
GALAXY LAPAO		
CAS. 866889-72-7	1 - 3	Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	1 - 5	Eye irritation, category 2 H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
JAGUAR EXCEL		
CAS. 65497-29-2	0.025 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
METHANOL		
CAS. 67-56-1	0 - 0.5	Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	260	200			SKIN.
TLV-ACGIH	-	262	200	328	250	
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN.
NIOSH	USA	260	200	325	250	SKIN.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	TRANSPARENT FLUID
Colour	BRIGHT YELLOW
Odour	REF. STD.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		2.000,0000 - 6.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).
1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

SECTION 11. Toxicological information. ... / >>

GALAXY LAPAO
LD50 (Oral). > 2000 mg/kg Rat
LD50 (Dermal). > 2174 mg/kg Rat

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts
LD50 (Oral). 2079 mg/kg rat (male/female)
LD50 (Dermal). > 6300 mg/kg rabbit
LC50 (Inhalation). > 52 mg/l/4h rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

JAGUAR EXCEL
LC50 - for Fish. < 1 mg/l/96h

GALAXY LAPAO
LC50 - for Fish. 18 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. 16 mg/l/48h Daphnia magna (mobility)
Chronic NOEC for Fish. 14 mg/l Oncorhynchus mykiss (96h)
Chronic NOEC for Crustacea. 4.3 mg/l Mobility Daphnia magna (48h)

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LC50 - for Fish. 1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea. 0.32 mg/l 21 d - Daphnia magna (riproduzione)

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LC50 - for Fish. > 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea. 14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea. 6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants. 12.5 mg/l Desmodesmus subspicatus 72h

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts
LC50 - for Fish. 4.2 mg/l/96h Danio rerio
EC50 - for Crustacea. 4.53 mg/l/48h Ceriodaphnia sp.
EC50 - for Algae / Aquatic Plants. 5.2 mg/l/72h Skeletonema costatum
EC10 for Algae / Aquatic Plants. 3.9 mg/l/72h 72 h - Skeletonema costatum
Chronic NOEC for Crustacea. 6.3 mg/l 21d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 3.2 mg/l 72h - Skeletonema costatum

12.2. Persistence and degradability.

GALAXY LAPAO
Solubility in water. 346900 mg/l 20°C
Rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

METHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts
Solubility in water. 292000 mg/l a 20°C
Rapidly biodegradable.

12.3. Bioaccumulative potential.

METHANOL
Partition coefficient: n-octanol/water. -0.77
BCF. 0.2

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts
Partition coefficient: n-octanol/water. -1.3
BCF. 70.8

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
67-56-1 METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-56-1 METHANOL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE
67-56-1 METHANOL

EPCRA 313 TRI:
67-56-1 METHANOL

RCRA Code:
67-56-1 METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
1310-73-2 SODIUM HYDROXIDE
67-56-1 METHANOL
99-87-6 p-cymene

SECTION 15. Regulatory information. ... / >>

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL

New Jersey:

1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL

New York:

1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL
99-87-6	p-cymene

California:

1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

67-56-1	METHANOL D

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number

SECTION 16. Other information. ... / >>

- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
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- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**75022/3**
Product name	**DEHC DEDE LEAVE IN COND SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information.

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
METHANOL		
CAS. 67-56-1	0 - 0.5	Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	260	200			SKIN.
TLV-ACGIH	-	262	200	328	250	
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN.
NIOSH	USA	260	200	325	250	SKIN.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SECTION 8. Exposure controls/personal protection. ... / >>

SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		liquid		
Colour		YELLOW/ORANGE		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

SECTION 10. Stability and reactivity. ... / >>

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

METHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

12.3. Bioaccumulative potential.

METHANOL
Partition coefficient: n-octanol/water. -0.77
BCF. 0.2

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-56-1 METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-56-1 METHANOL

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No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
67-56-1 METHANOL

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Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.
67-56-1 METHANOL D

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H225 Highly flammable liquid and vapour.
H370 Causes damage to organs.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
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- CE50: Effective concentration (required to induce a 50% effect)

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- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
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- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
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This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75023**
Product name **DEHC DEDE CONDITIONER**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	3 - 5	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride			
CAS.	*112-02-7*	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated			
CAS.	*106842-44-8*	0.1 - 0.5	Eye irritation, category 2 H319, Skin irritation, category 2 H315

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM		
Colour		YELLOW/ORANGE		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		3,5000 - 4,5000		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)

SECTION 9. Physical and chemical properties. ... / >>

Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,0080 - 1,0180 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	40.000,0000 - 80.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

ACIDO OLEICO
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

XIAMET. PMX-200/SIL. 200/350CS350 CS
LD50 (Oral). > 15400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

SECTION 11. Toxicological information. ... / >>

CUTINA MD
LD50 (Oral). > 5000 mg/kg

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

XIAMET. PMX-200/SIL. 200/350CS350 CS
EC50 - for Crustacea. > 200 mg/l/48h Daphnia magna

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated
EC50 - for Crustacea. 11 mg/l/48h

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

SECTION 12. Ecological information. ... / >>

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
99-87-6	p-cymene

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
99-87-6	p-cymene

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

SECTION 15. Regulatory information. ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%

SECTION 16. Other information. ... / >>

- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 03 / 08 / 09 / 11.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75024**
Product name **DEHC DEDE CONDITIONER**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	3 - 5	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride			
CAS.	*112-02-7*	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated			
CAS.	*106842-44-8*	0.1 - 0.5	Eye irritation, category 2 H319, Skin irritation, category 2 H315

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM		
Colour		YELLOW/ORANGE		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		3,5000 - 4,5000		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)

SECTION 9. Physical and chemical properties. ... / >>

Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,0080 - 1,0180 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	18.000,0000 - 30.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

ACIDO OLEICO

LD50 (Oral).	> 5000 mg/kg dato fornito da Huwell

XIAMET. PMX-200/SIL. 200/350CS350 CS

LD50 (Oral).	> 15400 mg/kg rat
LD50 (Dermal).	> 2000 mg/kg rabbit

SABONALC16-C18 / CETILSTEARIL.

LD50 (Oral).	> 2000 mg/kg rat

SECTION 11. Toxicological information. ... / >>

CUTINA MD
LD50 (Oral). > 5000 mg/kg

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ACIDO OLEICO
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

XIAMET. PMX-200/SIL. 200/350CS350 CS
EC50 - for Crustacea. > 200 mg/l/48h Daphnia magna

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated
EC50 - for Crustacea. 11 mg/l/48h

12.2. Persistence and degradability.

ACIDO OLEICO
Rapidly biodegradable.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

SECTION 12. Ecological information. ... / >>

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
99-87-6	p-cymene

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
112-80-1	ACIDO OLEICO
56-81-5	GLICERINA FU 30 BE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
99-87-6	p-cymene

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

SECTION 15. Regulatory information. ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%

SECTION 16. Other information. ... / >>

- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 03 / 08 / 09 / 11.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75026/3**
Product name **DEHC SOLU SH SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / eye protection / face protection.

SECTION 2. Hazards identification. ... / >>

Response:

P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER / doctor / . . .

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts		
CAS. 68439-57-6	5 - 9	Serious eye damage, category 1 H318, Skin irritation, category 2 H315
GALAXY LAPAO		
CAS. 866889-72-7	1 - 3	Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	1 - 5	Eye irritation, category 2 H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
D-Glucopyranose, oligomeric, C8-10 glycosides		
CAS. 68515-73-1	1 - 3	Serious eye damage, category 1 H318
JAGUAR EXCEL		
CAS. 65497-29-2	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
METHANOL		
CAS. 67-56-1	0 - 0.5	Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	260	200			SKIN.
TLV-ACGIH	-	262	200	328	250	
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN.
NIOSH	USA	260	200	325	250	SKIN.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	TRANSPARENT FLUID
Colour	RED AMBER
Odour	REF. STD.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		2.000,0000 - 6.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).
1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

SECTION 11. Toxicological information. ... / >>

GALAXY LAPAO
LD50 (Oral). > 2000 mg/kg Rat
LD50 (Dermal). > 2174 mg/kg Rat

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

D-Glucopyranose, oligomeric, C8-10 glycosides
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts
LD50 (Oral). 2079 mg/kg rat (male/female)
LD50 (Dermal). > 6300 mg/kg rabbit
LC50 (Inhalation). > 52 mg/l/4h rat

Carcinogenicity Assessment:
97-53-0 eugenol
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

JAGUAR EXCEL
LC50 - for Fish. < 1 mg/l/96h

GALAXY LAPAO
LC50 - for Fish. 18 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. 16 mg/l/48h Daphnia magna (mobility)
Chronic NOEC for Fish. 14 mg/l Oncorhynchus mykiss (96h)
Chronic NOEC for Crustacea. 4.3 mg/l Mobility Daphnia magna (48h)

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LC50 - for Fish. 1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea. 0.32 mg/l 21 d - Daphnia magna (riproduzione)

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LC50 - for Fish. > 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea. 14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea. 6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants. 12.5 mg/l Desmodesmus subspicatus 72h

D-Glucopyranose, oligomeric, C8-10 glycosides
LC50 - for Fish. 126 mg/l/96h Danio rerio
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 27.22 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish. 1 mg/l Danio rerio
Chronic NOEC for Crustacea. 1 mg/l Daphnia magna 21d

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts
LC50 - for Fish. 4.2 mg/l/96h Danio rerio
EC50 - for Crustacea. 4.53 mg/l/48h Ceriodaphnia sp.
EC50 - for Algae / Aquatic Plants. 5.2 mg/l/72h Skeletonema costatum

SECTION 12. Ecological information. ... / >>

EC10 for Algae / Aquatic Plants.	3.9 mg/l/72h 72 h - Skeletonema costatum
Chronic NOEC for Crustacea.	6.3 mg/l 21d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	3.2 mg/l 72h - Skeletonema costatum

12.2. Persistence and degradability.

GALAXY LAPAO
Solubility in water. 346900 mg/l 20°C
Rapidly biodegradable.

METHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

D-Glucopyranose, oligomeric, C8-10 glycosides
Rapidly biodegradable.

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts
Solubility in water. 292000 mg/l a 20°C
Rapidly biodegradable.

12.3. Bioaccumulative potential.

METHANOL
Partition coefficient: n-octanol/water. -0.77
BCF. 0.2

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts
Partition coefficient: n-octanol/water. -1.3
BCF. 70.8

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):

111-90-0	DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
67-56-1	METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:

84-66-2	diethyl phthalate

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

111-90-0	DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
67-56-1	METHANOL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL
84-66-2	diethyl phthalate

EPCRA 313 TRI:

SECTION 15. Regulatory information. ... / >>

111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
67-56-1 METHANOL

RCRA Code:
67-56-1 METHANOL
84-66-2 diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
1310-73-2 SODIUM HYDROXIDE
67-56-1 METHANOL
84-66-2 diethyl phthalate

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
1310-73-2 SODIUM HYDROXIDE
67-56-1 METHANOL
84-66-2 diethyl phthalate

New Jersey:
1310-73-2 SODIUM HYDROXIDE
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
105-53-3 DIETHYL MALONATE
67-56-1 METHANOL
84-66-2 diethyl phthalate

New York:
1310-73-2 SODIUM HYDROXIDE
67-56-1 METHANOL
84-66-2 diethyl phthalate

Pennsylvania:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
1310-73-2 SODIUM HYDROXIDE
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
67-56-1 METHANOL
84-66-2 diethyl phthalate
25265-71-8 oxydipropanol

California:
1310-73-2 SODIUM HYDROXIDE
67-56-1 METHANOL
84-66-2 diethyl phthalate
97-53-0 eugenol

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.
67-56-1 METHANOL D

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

SECTION 16. Other information. ... / >>

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**75033/3**
Product name	**DEHC LOVE CURL COND SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 1	Causes damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H372	Causes damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	3 - 5	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride			
CAS.	*112-02-7*	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
docosyltrimethylammonium methyl sulphate			
CAS.	*81646-13-1*	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

dodecan-1-ol
CAS. *112-53-8* 0 - 0.5 Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
CAS. *1222-05-5* 0 - 0.25 Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

METHANOL
CAS. *67-56-1* 0 - 0.5 Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	260	200			SKIN.
TLV-ACGIH	-	262	200	328	250	
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN.
NIOSH	USA	260	200	325	250	SKIN.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

SECTION 8. Exposure controls/personal protection. ... / >>

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM		
Colour		white		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		45.000,0000 - 85.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

Carcinogenicity Assessment:
67-63-0

SECTION 11. Toxicological information. ... / >>

ALCOOL ISOPROPILICO
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish.	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea.	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants.	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants.	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish.	3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea.	128 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish.	0.71 mg/l/96h
EC50 - for Crustacea.	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.18 mg/l/72h

12.2. Persistence and degradability.

METHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

METHANOL

Partition coefficient: n-octanol/water.	-0.77
BCF.	0.2

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
67-56-1 METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

67-56-1	METHANOL

EPCRA 313 TRI:

67-56-1	METHANOL
67-63-0	PROPAN-2-OL

RCRA Code:

67-56-1	METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

New York:

67-56-1	METHANOL

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

California:

67-56-1	METHANOL
67-63-0	PROPAN-2-OL

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

67-56-1	METHANOL D

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H311	Toxic in contact with skin.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value

SECTION 16. Other information. ... / >>

- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75034/3**
Product name **DEHC LOVE CURL COND PROF SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 1	Causes damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H372	Causes damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	3 - 5	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
docosyltrimethylammonium methyl sulphate		
CAS. 81646-13-1	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

dodecan-1-ol
CAS. *112-53-8* 0 - 0.5 Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
CAS. *1222-05-5* 0 - 0.25 Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

METHANOL
CAS. *67-56-1* 0 - 0.5 Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	260	200			SKIN.
TLV-ACGIH	-	262	200	328	250	
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN.
NIOSH	USA	260	200	325	250	SKIN.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

SECTION 8. Exposure controls/personal protection. ... / >>

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white	
Odour		Ref. Std.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		20.000,0000 - 38.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

Carcinogenicity Assessment:
67-63-0

SECTION 11. Toxicological information. ... / >>

ALCOOL ISOPROPILICO
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish.	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea.	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants.	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants.	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish.	3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea.	128 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish.	0.71 mg/l/96h
EC50 - for Crustacea.	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.18 mg/l/72h

12.2. Persistence and degradability.

METHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

METHANOL

Partition coefficient: n-octanol/water.	-0.77
BCF.	0.2

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
67-56-1 METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

67-56-1	METHANOL

EPCRA 313 TRI:

67-56-1	METHANOL
67-63-0	PROPAN-2-OL

RCRA Code:

67-56-1	METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

New York:

67-56-1	METHANOL

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

California:

67-56-1	METHANOL
67-63-0	PROPAN-2-OL

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

67-56-1	METHANOL D

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H311	Toxic in contact with skin.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value

SECTION 16. Other information. ... / >>

- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75036/3**
Product name **DEHC LOVE CURL HAIR SERUM SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information.

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SECTION 8. Exposure controls/personal protection. ... / >>

SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		pearly fluid	
Colour		pearly white	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		6.000,0000 - 12.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL: it is hygroscopic and stable under normal conditions; at high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.
CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
1,2-PROPANEDIOL: carbon oxides.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

GLICOLE PROPILENICO

LD50 (Oral).	22000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg rabbit
LC50 (Inhalation).	> 317042 mg/l rabbit

CYCLOHEXANE

LD50 (Oral).	> 5000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg Rabbit
LC50 (Inhalation).	13.9 mg/l/4h Rat

2,2',2''-nitrilotriethanol

LD50 (Oral).	6400 mg/kg rat
LD50 (Dermal).	> 2000 mg/kg rabbit

Carcinogenicity Assessment:

5989-27-5	(R)-p-mentha-1,8-diene
IARC:3	
88-12-0	1-vinyl-2-pyrrolidone
IARC:3	
79-10-7	ACRYLIC ACID
ACGIH:: A4	
IARC:3	

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

GLICOLE PROPILENICO

LC50 - for Fish.	> 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants.	24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea.	13020 mg/l Ceriodaphnia sp. (reproduction or growth_7 d)

CYCLOHEXANE

LC50 - for Fish.	4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	32.7 mg/l/72h Chlorella vulgaris

SECTION 12. Ecological information. ... / >>

2,2',2''-nitrilotriethanol

LC50 - for Fish.	11800 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	609.88 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants.	512 mg/l/72h Scenedesmus subspicatus (growth rate)
Chronic NOEC for Crustacea.	16 mg/l 21d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	< 28 mg/l 72h - Phaeodactylum tricornutum

12.2. Persistence and degradability.

CYCLOHEXANE: not easily biodegradable.

GLICOLE PROPILENICO
Rapidly biodegradable.

CYCLOHEXANE

Solubility in water.	mg/l 0.1 - 100

Rapidly biodegradable.

12.3. Bioaccumulative potential.

CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

GLICOLE PROPILENICO

Partition coefficient: n-octanol/water.	-1.07 Log KOW
BCF.	0.09 stimato

CYCLOHEXANE

Partition coefficient: n-octanol/water.	3.44

12.4. Mobility in soil.

CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE

Partition coefficient: soil/water.	2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

SECTION 14. Transport information. ... / >>

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
79-10-7	ACRYLIC ACID

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

SECTION 15. Regulatory information. ... / >>

RCRA Code:

110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1310-73-2	SODIUM HYDROXIDE
13463-67-7	TITANIUM DIOXIDE (Titanium dioxide (airborne, unbound particles of respirable size))
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
102-71-6	2,2',2''-nitrilotriethanol
12001-26-2	

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
57-55-6	GLICOLE PROPILENICO
1310-73-2	SODIUM HYDROXIDE
13463-67-7	TITANIUM DIOXIDE (Titanium dioxide (airborne, unbound particles of respirable size))
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
102-71-6	2,2',2''-nitrilotriethanol

New Jersey:

57-55-6	GLICOLE PROPILENICO
1310-73-2	SODIUM HYDROXIDE
13463-67-7	TITANIUM DIOXIDE (Titanium dioxide (airborne, unbound particles of respirable size))
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
88-12-0	
102-71-6	2,2',2''-nitrilotriethanol
12001-26-2	

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
57-55-6	GLICOLE PROPILENICO
1310-73-2	SODIUM HYDROXIDE
13463-67-7	TITANIUM DIOXIDE (Titanium dioxide (airborne, unbound particles of respirable size))
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
102-71-6	2,2',2''-nitrilotriethanol
12001-26-2	

California:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
12001-26-2	

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

13463-67-7	TITANIUM DIOXIDE C (Titanium dioxide (airborne, unbound particles of respirable size))

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

SECTION 15. Regulatory information. ... / >>

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)

SECTION 16. Other information. ... / >>

- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75041/3**
Product name **DEHC LOVE SMOOTH COND SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
docosyltrimethylammonium methyl sulphate		
CAS. 81646-13-1	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

dodecan-1-ol
CAS. *112-53-8* 0 - 0.5 Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
CAS. *1222-05-5* 0 - 0.25 Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM	
Colour		VIOLET	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		45.000,0000 - 95.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles,

SECTION 11. Toxicological information. ... / >>

pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SILICONE BELSIL DM300K
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 2008 mg/kg rat

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

SILICONE BELSIL DM300K
Chronic NOEC for Fish. > 10000 mg/l Oncorhynchus mykiss (28 day) _ Read across

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

SECTION 12. Ecological information. ... / >>

cetrimonium chloride

LC50 - for Fish.	0.71 mg/l/96h
EC50 - for Crustacea.	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.18 mg/l/72h

docosyltrimethylammonium methyl sulphate

LC50 - for Fish.	0.5 mg/l/96h
EC50 - for Crustacea.	1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish.	0.24 mg/l

12.2. Persistence and degradability.

SILICONE BELSIL DM300K
NOT rapidly biodegradable.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

octadecan-1-ol
Rapidly biodegradable.

docosyltrimethylammonium methyl sulphate
Solubility in water. 7 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

SECTION 14. Transport information. ... / >>

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New Jersey:

56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.

SECTION 16. Other information. ... / >>

H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website

SECTION 16. Other information. ... / >>

- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75042/3**
Product name **DEHC LOVE SMOOTH COND PROF SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
docosyltrimethylammonium methyl sulphate		
CAS. 81646-13-1	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

dodecan-1-ol
CAS. *112-53-8* 0 - 0.5 Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
CAS. *1222-05-5* 0 - 0.25 Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM	
Colour		VIOLET	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		20.000,0000 - 38.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles,

SECTION 11. Toxicological information. ... / >>

pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SILICONE BELSIL DM300K
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 2008 mg/kg rat

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

SILICONE BELSIL DM300K
Chronic NOEC for Fish. > 10000 mg/l Oncorhynchus mykiss (28 day) _ Read across

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

SECTION 12. Ecological information. ... / >>

cetrimonium chloride

LC50 - for Fish.	0.71 mg/l/96h
EC50 - for Crustacea.	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.18 mg/l/72h

docosyltrimethylammonium methyl sulphate

LC50 - for Fish.	0.5 mg/l/96h
EC50 - for Crustacea.	1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish.	0.24 mg/l

12.2. Persistence and degradability.

SILICONE BELSIL DM300K
NOT rapidly biodegradable.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

octadecan-1-ol
Rapidly biodegradable.

docosyltrimethylammonium methyl sulphate
Solubility in water. 7 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

SECTION 14. Transport information. ... / >>

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New Jersey:

56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.

SECTION 16. Other information. ... / >>

H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website

SECTION 16. Other information. ... / >>

- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75044/3**
Product name **DEHC LOVE SMOOTH FLUID SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information.

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

SECTION 2. Hazards identification. ... / >>

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements: --
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
decamethylcyclopentasiloxane		
CAS. 541-02-6	1 - 5	
SILICONE 200/065-BELSIL DM0.65		
CAS. 107-46-0	1 - 5	Flammable liquid, category 2 H225, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
dodecan-1-ol		
CAS. 112-53-8	0 - 0.5	Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran		
CAS. 1222-05-5	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

decamethylcyclopentasiloxane

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	0	10	0	0

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	VISCOUS LIQUID
Colour	lilac
Odour	REF. STD.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		6.000,0000 - 10.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL: it is hygroscopic and stable under normal conditions; at high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.
CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

1,2-PROPANEDIOL: carbon oxides.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

SECTION 11. Toxicological information. ... / >>

SILICONE SILSHINE 151
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

XIAMET. PMX-200/SIL. 200/350CS350 CS
LD50 (Oral). > 15400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

SILICONE 200/065-BELSIL DM0.65
LD50 (Dermal). > 2000 mg/kg rat
LC50 (Inhalation). 87 mg/l/4h rat

GLICOLE PROPILENICO
LD50 (Oral). 22000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg rabbit
LC50 (Inhalation). > 317042 mg/l rabbit

CYCLOHEXANE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit
LC50 (Inhalation). 13.9 mg/l/4h Rat

decamethylcyclopentasiloxane
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 8.67 mg/l/4h

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
88-12-0 1-vinyl-2-pyrrolidone
IARC:3
79-10-7 ACRYLIC ACID
ACGIH:: A4
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

XIAMET. PMX-200/SIL. 200/350CS350 CS
EC50 - for Crustacea. > 200 mg/l/48h Daphnia magna

SILICONE 200/065-BELSIL DM0.65
LC50 - for Fish. 3.02 mg/l/96h
EC50 - for Crustacea. 0.93 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.55 mg/l/72h

GLICOLE PROPILENICO
LC50 - for Fish. > 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. 18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants. 24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea. 13020 mg/l Ceriodaphnia sp. (reproduction or growth_7 d)

SECTION 12. Ecological information. ... / >>

CYCLOHEXANE

LC50 - for Fish.	4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	32.7 mg/l/72h Chlorella vulgaris

decamethylcyclopentasiloxane

LC50 - for Fish.	> 16 mg/l/96h
EC50 - for Crustacea.	> 2.9 mg/l/48h
EC10 for Algae / Aquatic Plants.	> 12 mg/l/72h 96 h
Chronic NOEC for Fish.	> 14 mg/l 90 d
Chronic NOEC for Crustacea.	> 15 mg/l 21 d

12.2. Persistence and degradability.

CYCLOHEXANE: not easily biodegradable.

GLICOLE PROPILENICO
Rapidly biodegradable.

CYCLOHEXANE

Solubility in water.	mg/l 0.1 - 100

Rapidly biodegradable.

decamethylcyclopentasiloxane

Solubility in water.	< 0.1 mg/l

12.3. Bioaccumulative potential.

CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

SILICONE 200/065-BELSIL DM0.65

Partition coefficient: n-octanol/water.	5.06 Log Kow

GLICOLE PROPILENICO

Partition coefficient: n-octanol/water.	-1.07 Log KOW
BCF.	0.09 stimato

CYCLOHEXANE

Partition coefficient: n-octanol/water.	3.44

12.4. Mobility in soil.

CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE

Partition coefficient: soil/water.	2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
79-10-7	ACRYLIC ACID

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

SECTION 15. Regulatory information. ... / >>

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

RCRA Code:

110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
13463-67-7	TITANIUM DIOXIDE (Titanium dioxide (airborne, unbound particles of respirable size))
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
102-71-6	2,2',2''-nitrilotriethanol
12001-26-2	

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
57-55-6	GLICOLE PROPILENICO
1310-73-2	SODIUM HYDROXIDE
13463-67-7	TITANIUM DIOXIDE (Titanium dioxide (airborne, unbound particles of respirable size))
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
102-71-6	2,2',2''-nitrilotriethanol

New Jersey:

56-81-5	GLICERINA FU 30 BE
57-55-6	GLICOLE PROPILENICO
1310-73-2	SODIUM HYDROXIDE
13463-67-7	TITANIUM DIOXIDE (Titanium dioxide (airborne, unbound particles of respirable size))
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
88-12-0	
102-71-6	2,2',2''-nitrilotriethanol
12001-26-2	

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
57-55-6	GLICOLE PROPILENICO
1310-73-2	SODIUM HYDROXIDE
13463-67-7	TITANIUM DIOXIDE (Titanium dioxide (airborne, unbound particles of respirable size))

SECTION 15. Regulatory information. ... / >>

122-99-6 2-PHENOXYETHANOL (Glycol ethers)
110-82-7 CYCLOHEXANE
79-10-7 ACRYLIC ACID
102-71-6 2,2',2''-nitrilotriethanol
12001-26-2

California:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
79-10-7 ACRYLIC ACID
12001-26-2

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.
13463-67-7 TITANIUM DIOXIDE C (Titanium dioxide (airborne, unbound particles of respirable size))

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H225 Highly flammable liquid and vapour.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.
H319 Causes serious eye irritation.
H410 Very toxic to aquatic life with long lasting effects.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%

SECTION 16. Other information. ... / >>

- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75048/3**
Product name **DEHC MELU COND SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 1	Causes damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H372	Causes damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
cetrimonium chloride			
CAS.	*112-02-7*	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
docosyltrimethylammonium methyl sulphate			
CAS.	*81646-13-1*	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated
CAS. *106842-44-8* 0.1 - 0.5 Eye irritation, category 2 H319, Skin irritation, category 2 H315
Amides, C18-unsatd., dimers, hydrogenated, N,N'-bis[3-(dimethylamino)propyl], polymers with di-Me, 3-hydroxypropyl Me siloxanes ethers with polyethylene glycol and polyethylene glycol mono (chloroacetate)
CAS. *1383435-61-7* 0.1 - 0.5 Skin sensitization, category 1 H317
VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317
METHANOL
CAS. *67-56-1* 0 - 0.5 Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures. ... / >>

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	260	200			SKIN.
TLV-ACGIH	-	262	200	328	250	
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN.
NIOSH	USA	260	200	325	250	SKIN.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM		
Colour		green		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		45.000,0000 - 90.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

SECTION 10. Stability and reactivity. ... / >>

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).

LANETTE 22
LD50 (Oral). > 2000 mg/kg rat

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

LANETTE 22
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

docosyltrimethylammonium methyl sulphate
LC50 - for Fish. 0.5 mg/l/96h
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.24 mg/l

Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated
EC50 - for Crustacea. 11 mg/l/48h

12.2. Persistence and degradability.

METHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

octadecan-1-ol
Rapidly biodegradable.

docosyltrimethylammonium methyl sulphate
Solubility in water. 7 mg/l

12.3. Bioaccumulative potential.

METHANOL
Partition coefficient: n-octanol/water. -0.77
BCF. 0.2

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

SECTION 13. Disposal considerations. ... / >>

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
67-56-1 METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-56-1 METHANOL

SECTION 15. Regulatory information. ... / >>

67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
67-56-1 METHANOL

EPCRA 313 TRI:
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

RCRA Code:
67-56-1 METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

New Jersey:
56-81-5 GLICERINA FU 30 BE
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

New York:
67-56-1 METHANOL

Pennsylvania:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

California:
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.
67-56-1 METHANOL D

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.

Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H311	Toxic in contact with skin.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train

SECTION 16. Other information. ... / >>

- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**75049/3**
Product name	**DEHC MELU COND PROF SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 1	Causes damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H372	Causes damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
cetrimonium chloride			
CAS.	*112-02-7*	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
docosyltrimethylammonium methyl sulphate			
CAS.	*81646-13-1*	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated
CAS. *106842-44-8* 0.1 - 0.5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

Amides, C18-unsatd., dimers, hydrogenated, N,N'-bis[3-(dimethylamino)propyl], polymers with di-Me, 3-hydroxypropyl Me siloxanes ethers with polyethylene glycol and polyethylene glycol mono (chloroacetate)
CAS. *1383435-61-7* 0.1 - 0.5 Skin sensitization, category 1 H317

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

METHANOL
CAS. *67-56-1* 0 - 0.5 Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures. ... / >>

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	260	200			SKIN.
TLV-ACGIH	-	262	200	328	250	
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN.
NIOSH	USA	260	200	325	250	SKIN.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM		
Colour		green		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		20.000,0000 - 38.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

SECTION 10. Stability and reactivity. ... / >>

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).

LANETTE 22
LD50 (Oral). > 2000 mg/kg rat

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

LANETTE 22
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

docosyltrimethylammonium methyl sulphate
LC50 - for Fish. 0.5 mg/l/96h
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.24 mg/l

Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated
EC50 - for Crustacea. 11 mg/l/48h

12.2. Persistence and degradability.

METHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

octadecan-1-ol
Rapidly biodegradable.

docosyltrimethylammonium methyl sulphate
Solubility in water. 7 mg/l

12.3. Bioaccumulative potential.

METHANOL
Partition coefficient: n-octanol/water. -0.77
BCF. 0.2

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

SECTION 13. Disposal considerations. ... / >>

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
67-56-1 METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-56-1 METHANOL

SECTION 15. Regulatory information. ... / >>

67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
67-56-1 METHANOL

EPCRA 313 TRI:
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

RCRA Code:
67-56-1 METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

New Jersey:
56-81-5 GLICERINA FU 30 BE
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

New York:
67-56-1 METHANOL

Pennsylvania:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

California:
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.
67-56-1 METHANOL D

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.

Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H311	Toxic in contact with skin.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train

SECTION 16. Other information. ... / >>

- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75051**
Product name **DEHC MELU HAIR SHIELD**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2	Highly flammable liquid and vapour.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.

SECTION 2. Hazards identification. ... / >>

P241	Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: use . . . to extinguish.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
ETHANOL		
CAS. 64-17-5	9 - 24	Flammable liquid, category 2 H225
Amides, C18-unsatd., dimers, hydrogenated, N,N'-bis[3-(dimethylamino)propyl], polymers with di-Me, 3-hydroxypropyl Me siloxanes ethers with polyethylene glycol and polyethylene glycol mono (chloroacetate)		
CAS. 1383435-61-7	0.5 - 1	Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

ETHANOL					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CLEAR LIQUID		
Colour		GREEN - YELLOW		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		3,2000 - 4,8000		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9840 - 0,9940		Kg/l
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Oxidising properties: Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

ZEMEA PROPANEDIOL

LD50 (Oral).	15000 mg/kg rat
LD50 (Dermal).	> 20000 mg/kg rabbit
LC50 (Inhalation).	> 5 mg/l/4h rat

ETHANOL

LD50 (Oral).	> 5000 mg/kg Rat
LC50 (Inhalation).	120 mg/l/4h Pimephales promelas

Carcinogenicity Assessment:

64-17-5	ETHANOL
ACGIH:: A3	
IARC:1	
67-63-0	ALCOOL ISOPROPILICO
IARC:3	
5989-27-5	(R)-p-mentha-1,8-diene
IARC:3	

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.

ETHANOL

Solubility in water.	mg/l 1000 - 10000

Rapidly biodegradable.

12.3. Bioaccumulative potential.

ETHANOL

Partition coefficient: n-octanol/water.	-0.35

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1170

14.2. UN proper shipping name.

ADR / RID:	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IMDG:	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IATA:	ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3. Transport hazard class(es).

ADR / RID:	Class: 3	Label: 3	
IMDG:	Class: 3	Label: 3	
IATA:	Class: 3	Label: 3	

14.4. Packing group.

ADR / RID, IMDG, IATA: II

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33 Special Provision: -	Limited Quantities 1 L	Tunnel restriction code (D/E)
IMDG:	EMS: F-E, S-D	Limited Quantities 1 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A58, A180	Packaging instructions: 364 Packaging instructions: 353

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

RCRA Code:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
128-37-0	2,6-di-tert-butyl-p-cresol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
128-37-0	2,6-di-tert-butyl-p-cresol

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
128-37-0	2,6-di-tert-butyl-p-cresol

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
128-37-0	2,6-di-tert-butyl-p-cresol

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
128-37-0	2,6-di-tert-butyl-p-cresol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Skin Sens. 1	Skin sensitization, category 1
H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code

SECTION 16. Other information. ... / >>

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

SECTION 16. Other information. ... / >>

Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 09 / 10 / 11 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75052/3**
Product name **DEHC VOLU SH SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / eye protection / face protection.

SECTION 2. Hazards identification. ... / >>

Response:

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER / doctor / . . .

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts		
CAS. 68439-57-6	5 - 9	Serious eye damage, category 1 H318, Skin irritation, category 2 H315
GALAXY LAPAO		
CAS. 866889-72-7	3 - 5	Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	1 - 5	Eye irritation, category 2 H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
JAGUAR EXCEL		
CAS. 65497-29-2	0.025 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
METHANOL		
CAS. 67-56-1	0 - 0.5	Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	260	200			SKIN.
TLV-ACGIH	-	262	200	328	250	
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN.
NIOSH	USA	260	200	325	250	SKIN.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	TRANSPARENT FLUID
Colour	colourless
Odour	REF. STD.
Odour threshold.	Not available.
pH.	5,4000 - 5,8000
Melting point / freezing point.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0330 - 1,0430	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		2.000,0000 - 6.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).
1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

SECTION 11. Toxicological information. ... / >>

GALAXY LAPAO
LD50 (Oral). > 2000 mg/kg Rat
LD50 (Dermal). > 2174 mg/kg Rat

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts
LD50 (Oral). 2079 mg/kg rat (male/female)
LD50 (Dermal). > 6300 mg/kg rabbit
LC50 (Inhalation). > 52 mg/l/4h rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

JAGUAR EXCEL
LC50 - for Fish. < 1 mg/l/96h

GALAXY LAPAO
LC50 - for Fish. 18 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. 16 mg/l/48h Daphnia magna (mobility)
Chronic NOEC for Fish. 14 mg/l Oncorhynchus mykiss (96h)
Chronic NOEC for Crustacea. 4.3 mg/l Mobility Daphnia magna (48h)

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LC50 - for Fish. 1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea. 0.32 mg/l 21 d - Daphnia magna (riproduzione)

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LC50 - for Fish. > 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea. 14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea. 6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants. 12.5 mg/l Desmodesmus subspicatus 72h

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts
LC50 - for Fish. 4.2 mg/l/96h Danio rerio
EC50 - for Crustacea. 4.53 mg/l/48h Ceriodaphnia sp.
EC50 - for Algae / Aquatic Plants. 5.2 mg/l/72h Skeletonema costatum
EC10 for Algae / Aquatic Plants. 3.9 mg/l/72h 72 h - Skeletonema costatum
Chronic NOEC for Crustacea. 6.3 mg/l 21d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 3.2 mg/l 72h - Skeletonema costatum

12.2. Persistence and degradability.

GALAXY LAPAO
Solubility in water. 346900 mg/l 20°C
Rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

METHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts
Solubility in water. 292000 mg/l a 20°C
Rapidly biodegradable.

12.3. Bioaccumulative potential.

METHANOL
Partition coefficient: n-octanol/water. -0.77
BCF. 0.2

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts
Partition coefficient: n-octanol/water. -1.3
BCF. 70.8

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
67-56-1 METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-56-1 METHANOL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE
67-56-1 METHANOL

EPCRA 313 TRI:
67-56-1 METHANOL

RCRA Code:
67-56-1 METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
1310-73-2 SODIUM HYDROXIDE
67-56-1 METHANOL

SECTION 15. Regulatory information. ... / >>

56-81-5 Glycerol

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
1310-73-2 SODIUM HYDROXIDE
67-56-1 METHANOL
56-81-5 Glycerol

New Jersey:
56-81-5 GLICERINA FU 30 BE
1310-73-2 SODIUM HYDROXIDE
67-56-1 METHANOL
56-81-5 Glycerol

New York:
1310-73-2 SODIUM HYDROXIDE
67-56-1 METHANOL

Pennsylvania:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
1310-73-2 SODIUM HYDROXIDE
67-56-1 METHANOL
56-81-5 Glycerol

California:
1310-73-2 SODIUM HYDROXIDE
67-56-1 METHANOL
97-53-0 eugenol

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.
67-56-1 METHANOL D

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H412	Harmful to aquatic life with long lasting effects.

SECTION 16. Other information. ... / >>

H413 May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

SECTION 16. Other information. ... / >>

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75055**
Product name **DEHC VOLU HAIR MIST**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Flammable liquid, category 2 — Highly flammable liquid and vapour.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H225 Highly flammable liquid and vapour.

Precautionary statements:
Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground / bond container and receiving equipment.
P241 Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242 Use only non-sparking tools.

SECTION 2. Hazards identification. ... / >>

P243 Take precautionary measures against static discharge.
P280 Wear protective gloves / eye protection / face protection.
Response:
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P370+P378 In case of fire: use . . . to extinguish.
Storage:
P403+P235 Store in a well-ventilated place. Keep cool.
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
ETHANOL			
CAS.	*64-17-5*	5 - 9	Flammable liquid, category 2 H225
Cationic hydroxyethyl cellulose			
CAS.	*92183-41-0*	0 - 0.5	Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

SECTION 5. Firefighting measures. ... / >>

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		slightly opalescent liquid		
Colour		colourless		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		4,6000 - 5,4000		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9970 - 1,0070	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

1,2-PROPANEDIOL: carbon oxides.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

PANTENOLO D
LD50 (Oral). > 10000 mg/kg rat

GLICOLE PROPILENICO
LD50 (Oral). 22000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg rabbit
LC50 (Inhalation). > 317042 mg/l rabbit

ETHANOL
LD50 (Oral). > 5000 mg/kg Rat
LC50 (Inhalation). 120 mg/l/4h Pimephales promelas

Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone
LD50 (Oral). > 10000 mg/kg rat

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
67-63-0 ALCOOL ISOPROPILICO
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.

PANTENOLO D

LC50 - for Fish.	> 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	> 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	> 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish.	> 1000 mg/l 96h
Chronic NOEC for Crustacea.	100 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants.	100 mg/l 72h

GLICOLE PROPILENICO

LC50 - for Fish.	> 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants.	24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea.	13020 mg/l Ceriodaphnia sp. (reproduction or growth_7 d)

Cationic hydroxyethyl cellulose

LC50 - for Fish.	> 1 mg/l/96h
EC50 - for Crustacea.	> 1 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

GLICOLE PROPILENICO
Rapidly biodegradable.

ETHANOL

Solubility in water.	mg/l 1000 - 10000

Rapidly biodegradable.

12.3. Bioaccumulative potential.

PANTENOLO D

Partition coefficient: n-octanol/water.	-106 mg/l Log KOW

GLICOLE PROPILENICO

Partition coefficient: n-octanol/water.	-1.07 Log KOW
BCF.	0.09 stimato

ETHANOL

Partition coefficient: n-octanol/water.	-0.35

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1170

14.2. UN proper shipping name.

ADR / RID: ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IMDG: ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IATA: ETHANOL (ETHYL ALCOHOL) or ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3. Transport hazard class(es).

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33	Limited Quantities 1 L	Tunnel restriction code (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-D	Limited Quantities 1 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3, A58, A180	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
57-55-6	GLICOLE PROPILENICO
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New Jersey:

56-81-5	GLICERINA FU 30 BE
57-55-6	GLICOLE PROPILENICO
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
57-55-6	GLICOLE PROPILENICO

SECTION 15. Regulatory information. ... / >>

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
H225	Highly flammable liquid and vapour.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit

SECTION 16. Other information. ... / >>

- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 08 / 09 / 10 / 11 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75056**
Product name **MINU SHAMPOO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Serious eye damage, category 1 — Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
Prevention:
P280 Wear protective gloves / eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .

SECTION 2. Hazards identification. ... / >>

Storage:
--
Disposal:
--

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
Disodium Laureth Sulfosuccinate		
CAS. 39354-45-5	5 - 9	Eye irritation, category 2 H319
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	1 - 5	Eye irritation, category 2 H319
Fatty acids, coco, 2-sulfoethyl esters, sodium salts		
CAS. 61789-32-0	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
Polyquaternium-53		
CAS. 84647-38-1	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
dodecan-1-ol		
CAS. 112-53-8	0 - 0.5	Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
JAGUAR EXCEL		
CAS. 65497-29-2	0.025 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

SECTION 8. Exposure controls/personal protection. ... / >>

ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		OPAQUE VISCOUS FLUID	
Colour		BLUE / GREEN	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		5,2000 - 5,4000	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0400 - 1,0500	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		3.000,0000 - 6.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

SECTION 11. Toxicological information. ... / >>

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.
1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

CYCLOHEXANE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit
LC50 (Inhalation). 13.9 mg/l/4h Rat

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

Disodium Laureth Sulfosuccinate
LD50 (Oral). > 2000 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

JAGUAR EXCEL
LC50 - for Fish. < 1 mg/l/96h

CYCLOHEXANE
LC50 - for Fish. 4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 32.7 mg/l/72h Chlorella vulgaris

SECTION 12. Ecological information. ... / >>

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LC50 - for Fish. 1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea. 0.32 mg/l 21 d - Daphnia magna (riproduzione)

dodecan-1-ol
LC50 - for Fish. 1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

Disodium Laureth Sulfosuccinate
LC50 - for Fish. > 1 mg/l/96h
EC50 - for Crustacea. > 1 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LC50 - for Fish. > 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea. 14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea. 6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants. 12.5 mg/l Desmodesmus subspicatus 72h

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
LC50 - for Fish. > 25 mg/l/96h
EC50 - for Crustacea. > 32 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. > 1.87 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Crustacea. > 32 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. > 0.31 mg/l Pseudokirchnerella subcapitata 72h

Polyquaternium-53
LC50 - for Fish. < 1 mg/l/96h

12.2. Persistence and degradability.

SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC: tends to be distributed exclusively in the air where it is photodegradable. The small amount that remains in the water tends to deposit at the bottom and is biodegraded; it is thus not bioaccumulated by fish. In the soil the substance remains absorbed and is unable to reach the subterranean layers.

CYCLOHEXANE
Solubility in water. mg/l 0.1 - 100
Rapidly biodegradable.

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

dodecan-1-ol
Solubility in water. 1 mg/l

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
Solubility in water. 102 mg/l a 23°C e pH 7
Rapidly biodegradable.

12.3. Bioaccumulative potential.

CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

CYCLOHEXANE
Partition coefficient: n-octanol/water. 3.44

SECTION 12. Ecological information. ... / >>

dodecan-1-ol
Partition coefficient: n-octanol/water. 5.36 log Pow

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
Partition coefficient: n-octanol/water. < -1.8 Log KOW

12.4. Mobility in soil.
CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE
Partition coefficient: soil/water. 2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE

RCRA Code:

110-82-7	CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
56-81-5	Glycerol
65-85-0	benzoic acid

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
56-81-5	Glycerol

SECTION 15. Regulatory information. ... / >>

New Jersey:

56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
56-81-5	Glycerol
65-85-0	benzoic acid

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
56-81-5	Glycerol
65-85-0	benzoic acid

California:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
65-85-0	benzoic acid

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 2	Acute toxicity, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H330	Fatal if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.

SECTION 16. Other information. ... / >>

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website

SECTION 16. Other information. ... / >>

- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**75060/3**
Product name	**DEHC COLORE COND SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	LUCID CREAM
Colour	VERY LIGHT BLUE/GREEN
Odour	REF. STD.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		30.000,0000 - 85.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

SILICONE SILSHINE 151
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New Jersey:

56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
56-81-5	Glycerol
68334-28-1	Oils, vegetable, hydrogenated

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
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- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level

SECTION 16. Other information. ... / >>

- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75061/3**
Product name **DEHC COLORE COND PROF SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	LUCID CREAM
Colour	VERY LIGHT BLUE/GREEN
Odour	REF. STD.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		20.000,0000 - 38.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

SILICONE SILSHINE 151
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New Jersey:

56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
56-81-5	Glycerol
68334-28-1	Oils, vegetable, hydrogenated

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
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Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**75064/3**
Product name	**DEHC COLORE PACK SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 1	Causes damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H372	Causes damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P270	Do no eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

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Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
docosyltrimethylammonium methyl sulphate		
CAS. 81646-13-1	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM		
Colour		BLUE / GREEN		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		3,5000 - 4,5000		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9850 - 0,9950	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		50.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles,

SECTION 11. Toxicological information. ... / >>

pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SILICONE SILSHINE 151
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New Jersey:

56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

SECTION 15. Regulatory information. ... / >>

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%

SECTION 16. Other information. ... / >>

- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75065/3**
Product name **DEHC COLORE PACK PROF SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 1	Causes damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H372	Causes damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P321	Specific treatment (see sect.4 on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

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Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride			
CAS.	*112-02-7*	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
docosyltrimethylammonium methyl sulphate			
CAS.	*81646-13-1*	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM		
Colour		BLUE / GREEN		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		20.000,0000 - 38.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles,

SECTION 11. Toxicological information. ... / >>

pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SILICONE SILSHINE 151
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

SECTION 12. Ecological information. ... / >>

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New Jersey:

56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

California:

67-63-0	PROPAN-2-OL

SECTION 15. Regulatory information. ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%

SECTION 16. Other information. ... / >>

- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75067/3**
Product name **DEHC COLORE SERUM SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Specific target organ toxicity - repeated exposure, category 1 — Causes damage to organs through prolonged or repeated exposure.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements:
Prevention:
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
Response:

SECTION 2. Hazards identification. ... / >>

P314 Get medical advice if you feel unwell.

Storage:

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Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride			
CAS.	*112-02-7*	0.25 - 0.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
METHANOL			
CAS.	*67-56-1*	0 - 0.5	Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	260	200			SKIN.
TLV-ACGIH	-	262	200	328	250	
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN.
NIOSH	USA	260	200	325	250	SKIN.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		liquid		
Colour		BLUE / GREEN		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).

SECTION 11. Toxicological information. ... / >>

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

PANTENOLO D
LD50 (Oral). > 10000 mg/kg rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

PANTENOLO D

LC50 - for Fish.	> 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	> 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	> 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish.	> 1000 mg/l 96h
Chronic NOEC for Crustacea.	100 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants.	100 mg/l 72h

12.2. Persistence and degradability.

METHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

12.3. Bioaccumulative potential.

PANTENOLO D
Partition coefficient: n-octanol/water. -106 mg/l Log KOW

METHANOL
Partition coefficient: n-octanol/water. -0.77
BCF. 0.2

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-56-1	METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-56-1	METHANOL

SECTION 15. Regulatory information. ... / >>

67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
67-56-1 METHANOL

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

RCRA Code:
67-56-1 METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-56-1 METHANOL
67-63-0 PROPAN-2-OL
56-81-5 Glycerol
9004-34-6 Cellulose

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-56-1 METHANOL
67-63-0 PROPAN-2-OL
56-81-5 Glycerol
9004-34-6 Cellulose

New Jersey:
56-81-5 GLICERINA FU 30 BE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-56-1 METHANOL
67-63-0 PROPAN-2-OL
56-81-5 Glycerol
9004-34-6 Cellulose

New York:
67-56-1 METHANOL

Pennsylvania:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-56-1 METHANOL
67-63-0 PROPAN-2-OL
56-81-5 Glycerol
9004-34-6 Cellulose

California:
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.
67-56-1 METHANOL D

SECTION 15. Regulatory information. ... / >>

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H311	Toxic in contact with skin.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%

SECTION 16. Other information. ... / >>

- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75030/31**
Product name **DEHC LOVE CURL SH SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Serious eye damage, category 1 — Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
Prevention:
P280 Wear protective gloves / eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .

SECTION 2. Hazards identification. ... / >>

Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Disodium Laureth Sulfosuccinate		
CAS. 39354-45-5	1 - 5	Eye irritation, category 2 H319
Fatty acids, coco, 2-sulfoethyl esters, sodium salts		
CAS. 61789-32-0	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	1 - 5	Eye irritation, category 2 H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
dodecan-1-ol		
CAS. 112-53-8	0 - 0.5	Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran		
CAS. 1222-05-5	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	OPAQUE VISCOUS FLUID
Colour	white
Odour	REF. STD.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		3.000,0000 - 6.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.
1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

SECTION 11. Toxicological information. ... / >>

CYCLOHEXANE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit
LC50 (Inhalation). 13.9 mg/l/4h Rat

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

Disodium Laureth Sulfosuccinate
LD50 (Oral). > 2000 mg/kg Rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

CYCLOHEXANE
LC50 - for Fish. 4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 32.7 mg/l/72h Chlorella vulgaris

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LC50 - for Fish. 1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea. 0.32 mg/l 21 d - Daphnia magna (riproduzione)

Disodium Laureth Sulfosuccinate
LC50 - for Fish. > 1 mg/l/96h
EC50 - for Crustacea. > 1 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

SECTION 12. Ecological information. ... / >>

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish.	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea.	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants.	12.5 mg/l Desmodesmus subspicatus 72h

Fatty acids, coco, 2-sulfoethyl esters, sodium salts

LC50 - for Fish.	> 25 mg/l/96h
EC50 - for Crustacea.	> 32 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	> 1.87 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Crustacea.	> 32 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	> 0.31 mg/l Pseudokirchnerella subcapitata 72h

12.2. Persistence and degradability.

CYCLOHEXANE: not easily biodegradable.

CYCLOHEXANE
Solubility in water. mg/l 0.1 - 100
Rapidly biodegradable.

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
Solubility in water. 102 mg/l a 23°C e pH 7
Rapidly biodegradable.

12.3. Bioaccumulative potential.

CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

CYCLOHEXANE
Partition coefficient: n-octanol/water. 3.44

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
Partition coefficient: n-octanol/water. < -1.8 Log KOW

12.4. Mobility in soil.

CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE
Partition coefficient: soil/water. 2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

SECTION 15. Regulatory information. ... / >>

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

RCRA Code:

110-82-7	CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

California:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
65-85-0	benzoic acid

Proposition 65:

SECTION 15. Regulatory information. ... / >>

This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 2	Acute toxicity, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H330	Fatal if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level

SECTION 16. Other information. ... / >>

- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75038/31**
Product name **DEHC LOVE SMOOTH SH SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Serious eye damage, category 1 — Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
Prevention:
P280 Wear protective gloves / eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .

SECTION 2. Hazards identification. ... / >>

Storage:
--
Disposal:
--

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Disodium Laureth Sulfosuccinate		
CAS. 39354-45-5	1 - 5	Eye irritation, category 2 H319
Fatty acids, coco, 2-sulfoethyl esters, sodium salts		
CAS. 61789-32-0	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	1 - 5	Eye irritation, category 2 H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
dodecan-1-ol		
CAS. 112-53-8	0 - 0.5	Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran		
CAS. 1222-05-5	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
JAGUAR EXCEL		
CAS. 65497-29-2	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

SECTION 8. Exposure controls/personal protection. ... / >>

ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		OPAQUE VISCOUS FLUID		
Colour		VIOLET		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		3.000,0000 - 7.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

SECTION 11. Toxicological information. ... / >>

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.
1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

CYCLOHEXANE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit
LC50 (Inhalation). 13.9 mg/l/4h Rat

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

Disodium Laureth Sulfosuccinate
LD50 (Oral). > 2000 mg/kg Rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

JAGUAR EXCEL
LC50 - for Fish. < 1 mg/l/96h

CYCLOHEXANE
LC50 - for Fish. 4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 32.7 mg/l/72h Chlorella vulgaris

SECTION 12. Ecological information. ... / >>

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts

LC50 - for Fish.	1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish.	0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea.	0.32 mg/l 21 d - Daphnia magna (riproduzione)

dodecan-1-ol

LC50 - for Fish.	1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

Disodium Laureth Sulfosuccinate

LC50 - for Fish.	> 1 mg/l/96h
EC50 - for Crustacea.	> 1 mg/l/48h Daphnia magna

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

LC50 - for Fish.	0.452 mg/l/96h
EC50 - for Crustacea.	0.47 mg/l/48h
EC50 - for Algae / Aquatic Plants.	> 0.854 mg/l/72h Pseudokirchnerella subcapitata

sodium N-lauroylsarcosinate

LC50 - for Fish.	56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish.	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea.	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants.	12.5 mg/l Desmodesmus subspicatus 72h

Fatty acids, coco, 2-sulfoethyl esters, sodium salts

LC50 - for Fish.	> 25 mg/l/96h
EC50 - for Crustacea.	> 32 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	> 1.87 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Crustacea.	> 32 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	> 0.31 mg/l Pseudokirchnerella subcapitata 72h

12.2. Persistence and degradability.

CYCLOHEXANE: not easily biodegradable.

CYCLOHEXANE

Solubility in water.	mg/l 0.1 - 100

Rapidly biodegradable.

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

dodecan-1-ol

Solubility in water.	1 mg/l

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

Fatty acids, coco, 2-sulfoethyl esters, sodium salts

Solubility in water.	102 mg/l a 23°C e pH 7

Rapidly biodegradable.

12.3. Bioaccumulative potential.

CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

CYCLOHEXANE

Partition coefficient: n-octanol/water.	3.44

SECTION 12. Ecological information. ... / >>

dodecan-1-ol
Partition coefficient: n-octanol/water. 5.36 log Pow

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
Partition coefficient: n-octanol/water. < -1.8 Log KOW

12.4. Mobility in soil.
CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE
Partition coefficient: soil/water. 2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):

122-99-6	2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE

RCRA Code:

110-82-7	CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
56-81-5	Glycerol
65-85-0	benzoic acid

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
56-81-5	Glycerol

New Jersey:

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
56-81-5	Glycerol
65-85-0	benzoic acid

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
56-81-5	Glycerol
65-85-0	benzoic acid

California:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 2	Acute toxicity, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H330	Fatal if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75045/31**
Product name **DEHC MELU SH SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Serious eye damage, category 1 — Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
Prevention:
P280 Wear protective gloves / eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .

SECTION 2. Hazards identification. ... / >>

Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Disodium Laureth Sulfosuccinate		
CAS. 39354-45-5	1 - 5	Eye irritation, category 2 H319
Fatty acids, coco, 2-sulfoethyl esters, sodium salts		
CAS. 61789-32-0	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	1 - 5	Eye irritation, category 2 H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
dodecan-1-ol		
CAS. 112-53-8	0 - 0.5	Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	OPAQUE VISCOUS FLUID
Colour	green
Odour	REF. STD.
Odour threshold.	Not available.
pH.	5,2000 - 5,4000
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9900 - 1,0900	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		3.000,0000 - 6.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.
1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

SECTION 11. Toxicological information. ... / >>

CYCLOHEXANE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit
LC50 (Inhalation). 13.9 mg/l/4h Rat

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

Disodium Laureth Sulfosuccinate
LD50 (Oral). > 2000 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

CYCLOHEXANE
LC50 - for Fish. 4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 32.7 mg/l/72h Chlorella vulgaris

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LC50 - for Fish. 1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea. 0.32 mg/l 21 d - Daphnia magna (riproduzione)

dodecan-1-ol
LC50 - for Fish. 1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

Disodium Laureth Sulfosuccinate
LC50 - for Fish. > 1 mg/l/96h
EC50 - for Crustacea. > 1 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

SECTION 12. Ecological information. ... / >>

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish.	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea.	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants.	12.5 mg/l Desmodesmus subspicatus 72h

Fatty acids, coco, 2-sulfoethyl esters, sodium salts

LC50 - for Fish.	> 25 mg/l/96h
EC50 - for Crustacea.	> 32 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	> 1.87 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Crustacea.	> 32 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	> 0.31 mg/l Pseudokirchnerella subcapitata 72h

12.2. Persistence and degradability.

SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC: tends to be distributed exclusively in the air where it is photodegradable. The small amount that remains in the water tends to deposit at the bottom and is biodegraded; it is thus not bioaccumulated by fish. In the soil the substance remains absorbed and is unable to reach the subterranean layers.

CYCLOHEXANE
Solubility in water. mg/l 0.1 - 100
Rapidly biodegradable.

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

dodecan-1-ol
Solubility in water. 1 mg/l

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
Solubility in water. 102 mg/l a 23°C e pH 7
Rapidly biodegradable.

12.3. Bioaccumulative potential.

CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

CYCLOHEXANE
Partition coefficient: n-octanol/water. 3.44

dodecan-1-ol
Partition coefficient: n-octanol/water. 5.36 log Pow

Fatty acids, coco, 2-sulfoethyl esters, sodium salts
Partition coefficient: n-octanol/water. < -1.8 Log KOW

12.4. Mobility in soil.

CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE
Partition coefficient: soil/water. 2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

RCRA Code:

110-82-7	CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
128-37-0	2,6-di-tert-butyl-p-cresol
56-81-5	Glycerol
65-85-0	benzoic acid

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
128-37-0	2,6-di-tert-butyl-p-cresol
56-81-5	Glycerol

New Jersey:

56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
128-37-0	2,6-di-tert-butyl-p-cresol
56-81-5	Glycerol
65-85-0	benzoic acid

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
128-37-0	2,6-di-tert-butyl-p-cresol
56-81-5	Glycerol
65-85-0	benzoic acid

California:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
128-37-0	2,6-di-tert-butyl-p-cresol
65-85-0	benzoic acid

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 2	Acute toxicity, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H330	Fatal if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)

SECTION 16. Other information. ... / >>

- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

SECTION 16. Other information. ... / >>

The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75102**
Product name **DEHC MINU PAK**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 1	Causes damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H372	Causes damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P270	Do no eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
docosyltrimethylammonium methyl sulphate		
CAS. 81646-13-1	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	Not available.
Colour	Not available.
Odour	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		Not available.	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

SILICONE SILSHINE 151
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

EUMULGIN BA 25
LD50 (Oral). > 2000 mg/kg

ZEMEA PROPANEDIOL
LD50 (Oral). 15000 mg/kg rat
LD50 (Dermal). > 20000 mg/kg rabbit
LC50 (Inhalation). > 5 mg/l/4h rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

CUTINA MD
LD50 (Oral). > 5000 mg/kg

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

ZEMEA PROPANEDIOL
LC50 - for Fish. > 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea. 7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 1600 mg/l/72h Algae

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

SECTION 12. Ecological information. ... / >>

12.2. Persistence and degradability.

EUMULGIN BA 25
Rapidly biodegradable.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
64-17-5 ETHANOL
67-63-0 PROPAN-2-OL
56-81-5 Glycerol

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
64-17-5 ETHANOL

SECTION 15. Regulatory information. ... / >>

67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New Jersey:

56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

SECTION 16. Other information. ... / >>

H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

SECTION 16. Other information. ... / >>

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 08 / 11.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75104**
Product name **MOMO HAIR POTION**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Skin sensitization, category 1 — May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H317 May cause an allergic skin reaction.

Precautionary statements:
Prevention:
P261 Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .

SECTION 2. Hazards identification. ... / >>

P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	0 - 0.5	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Laurdimonium Hydroxypropyl Hydrolyzed Wheat Protein			
CAS.	*130381-06-5*	0 - 0.5	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran			
CAS.	*1222-05-5*	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
VITAMINA E/DL-ALPHA-TOCOPHEROL			
CAS.	*10191-41-0*	0.1 - 0.5	Skin sensitization, category 1 H317
Copolymer of acrylic acid with cationic acrylic derivative			
CAS.	*154245-39-3*	0 - 0.5	Hazardous to the aquatic environment, chronic toxicity, category 2 H411
JAGUAR EXCEL			
CAS.	*65497-29-2*	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	Not available.
Colour	Not available.
Odour	Not available.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		Not available.	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SABONALC16-C18 / CETILSTEARIL.

LD50 (Oral).	> 2000 mg/kg rat

PANTENOLO D

LD50 (Oral).	> 10000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL

LD50 (Oral).	> 4000 mg/kg rat
LD50 (Dermal).	1480 mg/kg rabbit

SECTION 11. Toxicological information. ... / >>

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
88-12-0 1-vinyl-2-pyrrolidone
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

JAGUAR EXCEL
LC50 - for Fish. < 1 mg/l/96h

PANTENOLO D
LC50 - for Fish. > 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish. > 1000 mg/l 96h
Chronic NOEC for Crustacea. 100 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 100 mg/l 72h

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LC50 - for Fish. 0.452 mg/l/96h
EC50 - for Crustacea. 0.47 mg/l/48h
EC50 - for Algae / Aquatic Plants. > 0.854 mg/l/72h Pseudokirchnerella subcapitata

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

12.3. Bioaccumulative potential.

PANTENOLO D
Partition coefficient: n-octanol/water. -106 mg/l Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
84-66-2 diethyl phthalate

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

84-66-2	diethyl phthalate

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:

84-66-2	diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
84-66-2	diethyl phthalate

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
84-66-2	diethyl phthalate

New Jersey:

56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
84-66-2	diethyl phthalate
88-12-0	

New York:

84-66-2	diethyl phthalate

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
84-66-2	diethyl phthalate

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
84-66-2	diethyl phthalate

Proposition 65:

SECTION 15. Regulatory information. ... / >>

This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit

SECTION 16. Other information. ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 08 / 11.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71198/31**
Product name **OI OIL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2	Highly flammable liquid and vapour.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.

SECTION 2. Hazards identification. ... / >>

P241	Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P321	Specific treatment (see sect.4 on this label).
P333+P313	If skin irritation or rash occurs: get medical advice.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: use . . . to extinguish.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

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Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
decamethylcyclopentasiloxane		
CAS. 541-02-6	60 - 100	
SILICONE 200/065-BELSIL DM0.65		
CAS. 107-46-0	9 - 24	Flammable liquid, category 2 H225, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
VITAMINA E/DL-ALPHA-TOCOPHEROL		
CAS. 10191-41-0	0.1 - 0.5	Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

decamethylcyclopentasiloxane					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	0	10	0	0

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CLEAR LIQUID		
Colour		yellow		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid.

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

SILICONE 200/065-BELSIL DM0.65
LD50 (Dermal). > 2000 mg/kg rat
LC50 (Inhalation). 87 mg/l/4h rat

UVINUL MC 80 / ACESORB OMC
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 0.511 mg/l/4h

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

decamethylcyclopentasiloxane
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 8.67 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

SILICONE 200/065-BELSIL DM0.65
LC50 - for Fish. 3.02 mg/l/96h
EC50 - for Crustacea. 0.93 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.55 mg/l/72h

UVINUL MC 80 / ACESORB OMC
LC50 - for Fish. > 100 mg/l/96h Cyprinus carpio
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Pseudokirchneriella subcapitata

decamethylcyclopentasiloxane
LC50 - for Fish. > 16 mg/l/96h
EC50 - for Crustacea. > 2.9 mg/l/48h
EC10 for Algae / Aquatic Plants. > 12 mg/l/72h 96 h
Chronic NOEC for Fish. > 14 mg/l 90 d
Chronic NOEC for Crustacea. > 15 mg/l 21 d

12.2. Persistence and degradability.

UVINUL MC 80 / ACESORB OMC
Solubility in water. 0.041 mg/l

decamethylcyclopentasiloxane
Solubility in water. < 0.1 mg/l

12.3. Bioaccumulative potential.

SILICONE 200/065-BELSIL DM0.65
Partition coefficient: n-octanol/water. 5.06 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1993

14.2. UN proper shipping name.

ADR / RID:	FLAMMABLE LIQUID, N.O.S. (SILICONE 200/065-BELSIL DM0.65)
IMDG:	FLAMMABLE LIQUID, N.O.S. (SILICONE 200/065-BELSIL DM0.65)
IATA:	FLAMMABLE LIQUID, N.O.S. (SILICONE 200/065-BELSIL DM0.65)

14.3. Transport hazard class(es).

ADR / RID:	Class: 3	Label: 3	
IMDG:	Class: 3	Label: 3	
IATA:	Class: 3	Label: 3	

14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 33	Limited Quantity 1 L	Tunnel restriction code (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-E	Limited Quantity 1 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
101-84-8 diphenyl ether

Minnesota:
101-84-8 diphenyl ether

New Jersey:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
101-84-8 diphenyl ether

New York:
No component(s) listed.

Pennsylvania:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
101-84-8 diphenyl ether
119-36-8 methyl salicylate

California:
101-84-8 diphenyl ether

SECTION 15. Regulatory information. ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit

SECTION 16. Other information. ... / >>

- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **73271/3**
Product name **OI SHAMPOO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Serious eye damage, category 1 — Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
Prevention:
P280 Wear protective gloves / eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .

SECTION 2. Hazards identification. ... / >>

Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	5 - 9	Eye irritation, category 2 H319
Disodium Laureth Sulfosuccinate		
CAS. 39354-45-5	1 - 5	Eye irritation, category 2 H319
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium 2-(dodecyloxy)-2-oxoethane-1-sulphonate		
CAS. 1847-58-1	1 - 3	Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335
JAGUAR EXCEL		
CAS. 65497-29-2	0.025 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	FLUID GEL
Colour	YELLOWISH
Odour	REF. STD.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		2.500,0000 - 4.500,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.
1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

SECTION 11. Toxicological information. ... / >>

PANTENOLO D
LD50 (Oral). > 10000 mg/kg rat

CYCLOHEXANE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit
LC50 (Inhalation). 13.9 mg/l/4h Rat

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

Disodium Laureth Sulfosuccinate
LD50 (Oral). > 2000 mg/kg Rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

JAGUAR EXCEL
LC50 - for Fish. < 1 mg/l/96h

PANTENOLO D
LC50 - for Fish. > 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish. > 1000 mg/l 96h
Chronic NOEC for Crustacea. 100 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 100 mg/l 72h

CYCLOHEXANE
LC50 - for Fish. 4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 32.7 mg/l/72h Chlorella vulgaris

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LC50 - for Fish. 1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea. 0.32 mg/l 21 d - Daphnia magna (riproduzione)

Disodium Laureth Sulfosuccinate
LC50 - for Fish. > 1 mg/l/96h
EC50 - for Crustacea. > 1 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate
LC50 - for Fish. 56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LC50 - for Fish. > 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea. 14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea. 6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants. 12.5 mg/l Desmodesmus subspicatus 72h

SECTION 12. Ecological information. ... / >>

12.2. Persistence and degradability.
CYCLOHEXANE: not easily biodegradable.

CYCLOHEXANE
Solubility in water. mg/l 0.1 - 100
Rapidly biodegradable.

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

12.3. Bioaccumulative potential.
CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

PANTENOLO D
Partition coefficient: n-octanol/water. -106 mg/l Log KOW

CYCLOHEXANE
Partition coefficient: n-octanol/water. 3.44

12.4. Mobility in soil.
CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE
Partition coefficient: soil/water. 2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
110-82-7 CYCLOHEXANE

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
65-85-0 benzoic acid

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
110-82-7 CYCLOHEXANE

RCRA Code:
110-82-7 CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
101-84-8	diphenyl ether
65-85-0	benzoic acid

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
101-84-8	diphenyl ether

New Jersey:

1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
101-84-8	diphenyl ether
65-85-0	benzoic acid

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
101-84-8	diphenyl ether
119-36-8	methyl salicylate
65-85-0	benzoic acid

California:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
101-84-8	diphenyl ether
65-85-0	benzoic acid

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 2	Acute toxicity, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3

SECTION 16. Other information. ... / >>

Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H330	Fatal if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

SECTION 16. Other information. ... / >>

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **73272/3**
Product name **OI CONDITIONER**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P321 Specific treatment (see sect.4 on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
cetrimonium chloride			
CAS.	*112-02-7*	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
decamethylcyclopentasiloxane			
CAS.	*541-02-6*	1 - 5	
docosyltrimethylammonium methyl sulphate			
CAS.	*81646-13-1*	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

decamethylcyclopentasiloxane					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	0	10	0	0

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		45.000,0000 - 75.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

UVINUL MC 80 / ACESORB OMC
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 0.511 mg/l/4h

PANTENOLO D
LD50 (Oral). > 10000 mg/kg rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

decamethylcyclopentasiloxane
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 8.67 mg/l/4h

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

UVINUL MC 80 / ACESORB OMC
LC50 - for Fish. > 100 mg/l/96h Cyprinus carpio
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Pseudokirchneriella subcapitata

PANTENOLO D
LC50 - for Fish. > 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish. > 1000 mg/l 96h
Chronic NOEC for Crustacea. 100 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 100 mg/l 72h

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

SECTION 12. Ecological information. ... / >>

decamethylcyclopentasiloxane

LC50 - for Fish.	> 16 mg/l/96h
EC50 - for Crustacea.	> 2.9 mg/l/48h
EC10 for Algae / Aquatic Plants.	> 12 mg/l/72h 96 h
Chronic NOEC for Fish.	> 14 mg/l 90 d
Chronic NOEC for Crustacea.	> 15 mg/l 21 d

docosyltrimethylammonium methyl sulphate

LC50 - for Fish.	0.5 mg/l/96h
EC50 - for Crustacea.	1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish.	0.24 mg/l

12.2. Persistence and degradability.

UVINUL MC 80 / ACESORB OMC
Solubility in water. 0.041 mg/l

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

decamethylcyclopentasiloxane
Solubility in water. < 0.1 mg/l

octadecan-1-ol
Rapidly biodegradable.

docosyltrimethylammonium methyl sulphate
Solubility in water. 7 mg/l

12.3. Bioaccumulative potential.

PANTENOLO D
Partition coefficient: n-octanol/water. -106 mg/l Log KOW

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

New Jersey:

56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether
119-36-8	methyl salicylate

California:

67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2

SECTION 16. Other information. ... / >>

Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition

SECTION 16. Other information. ... / >>

- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **73273/3**
Product name **OI ALL IN ONE MILK**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Skin sensitization, category 1 — May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H317 May cause an allergic skin reaction.

Precautionary statements:
Prevention:
P261 Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .

SECTION 2. Hazards identification. ... / >>

P321 Specific treatment (see sect.4 on this label).
P333+P313 If skin irritation or rash occurs: get medical advice.
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

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Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
VITAMINA E/DL-ALPHA-TOCOPHEROL			
CAS.	*10191-41-0*	0.5 - 1	Skin sensitization, category 1 H317
cetrimonium chloride			
CAS.	*112-02-7*	0.25 - 0.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
METHANOL			
CAS.	*67-56-1*	0 - 0.5	Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	260	200			SKIN.
TLV-ACGIH	-	262	200	328	250	
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN.
NIOSH	USA	260	200	325	250	SKIN.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

SECTION 8. Exposure controls/personal protection. ... / >>

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		2.000,0000 - 6.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

SECTION 11. Toxicological information. ... / >>

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

PANTENOLO D
LD50 (Oral). > 10000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

PANTENOLO D

LC50 - for Fish.	> 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	> 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	> 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish.	> 1000 mg/l 96h
Chronic NOEC for Crustacea.	100 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants.	100 mg/l 72h

12.2. Persistence and degradability.

METHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

12.3. Bioaccumulative potential.

PANTENOLO D
Partition coefficient: n-octanol/water. -106 mg/l Log KOW

METHANOL
Partition coefficient: n-octanol/water. -0.77
BCF. 0.2

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-56-1	METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

67-56-1	METHANOL

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

RCRA Code:

67-56-1	METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
67-56-1	METHANOL
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
67-56-1	METHANOL
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether
56-81-5	Glycerol

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-56-1	METHANOL
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether
56-81-5	Glycerol

New York:

67-56-1	METHANOL

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

SECTION 15. Regulatory information. ... / >>

101-84-8	diphenyl ether
119-36-8	methyl salicylate
56-81-5	Glycerol

California:

67-56-1	METHANOL
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

Proposition 65:

WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

67-56-1	METHANOL D

International Regulations.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Candadian WHMIS.

Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H311	Toxic in contact with skin.
H370	Causes damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration

SECTION 16. Other information. ... / >>

- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **76017**
Product name **OI/BODY WASH**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Eye irritation, category 2 — Causes serious eye irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H319 Causes serious eye irritation.

Precautionary statements:
Prevention:
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 2. Hazards identification. ... / >>

P337+P313 If eye irritation persists: Get medical advice / attention.

Storage:

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Disposal:

--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Disodium Laureth Sulfosuccinate		
CAS. 39354-45-5	1 - 5	Eye irritation, category 2 H319
1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	1 - 5	Eye irritation, category 2 H319
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

CYCLOHEXANE					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.
Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

CYCLOHEXANE

LD50 (Oral).	> 5000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg Rabbit
LC50 (Inhalation).	13.9 mg/l/4h Rat

Disodium Laureth Sulfosuccinate

LD50 (Oral).	> 2000 mg/kg Rat

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts

LD50 (Oral).	2335 mg/kg rat

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LD50 (Oral).	8400 mg/kg rat
LD50 (Dermal).	> 2000 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

CYCLOHEXANE

LC50 - for Fish.	4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	32.7 mg/l/72h Chlorella vulgaris

Disodium Laureth Sulfosuccinate

LC50 - for Fish.	> 1 mg/l/96h
EC50 - for Crustacea.	> 1 mg/l/48h Daphnia magna

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts

LC50 - for Fish.	1.11 mg/l/96h
Chronic NOEC for Fish.	0.135 mg/l 37d
Chronic NOEC for Crustacea.	0.32 mg/l 21d
Chronic NOEC for Algae / Aquatic Plants.	0.36 mg/l Desmodesmus subspicatus 72h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish.	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea.	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants.	12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability.

SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC: tends to be distributed exclusively in the air where it is photodegradable. The small amount that remains in the water tends to deposit at the bottom and is biodegraded; it is thus not bioaccumulated by fish. In the soil the substance remains absorbed and is unable to reach the subterranean layers.

CYCLOHEXANE
Solubility in water. mg/l 0.1 - 100
Rapidly biodegradable.

1-Propanaminium,3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-(C8-18(even numbered) and C18 unsaturated acyl) derivs., hydroxides, inner salts
Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

12.3. Bioaccumulative potential.

CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

CYCLOHEXANE
Partition coefficient: n-octanol/water. 3.44

12.4. Mobility in soil.

CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE
Partition coefficient: soil/water. 2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

RCRA Code:

110-82-7	CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether
65-85-0	benzoic acid

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether

New Jersey:

56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether
65-85-0	benzoic acid

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether
119-36-8	methyl salicylate
65-85-0	benzoic acid

California:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL
101-84-8	diphenyl ether
65-85-0	benzoic acid

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008

SECTION 16. Other information. ... / >>

- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **87011/3**
Product name **THIS IS AN OIL NON OIL**
IT'S FOR NATURAL, TAMED TEXTURES

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Flammable liquid, category 4 — Combustible liquid.
Carcinogenicity, category 1A — May cause cancer.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H227 Combustible liquid.
H350 May cause cancer.

Precautionary statements:
Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.

SECTION 2. Hazards identification. ... / >>

P280 Wear protective gloves / clothing and eye / face protection.
Response:
P308+P313 IF exposed or concerned: Get medical advice / attention.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
ETHANOL		
CAS. 64-17-5	1 - 5	Flammable liquid, category 2 H225, Carcinogenicity, category 1A H350
Cationic Hydroxyethyl cellulose		
CAS. 68610-92-4	1 - 5	Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of

contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

SECTION 8. Exposure controls/personal protection. ... / >>

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
The product must be used inside a closed circuit, in a well-ventilated environment and with strong localised aspiration systems in place.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		TRANSPARENT LIQUID	
Colour		FROM COLOURLESS TO YELLOWISH	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		3,9000 - 4,9000	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	73 °C.	(163,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0050	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		120,0000 - 250,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

ETHANOL: risk of explosion on contact with: alkaline metals, alkaline oxides, calcium hypochlorite, sulphur monofluoride, acetic anhydride (with acids), concentrated hydrogen peroxide, perchlorates, perchloric acid, perchloronitrile, mercury nitrate, nitric acid, silver and nitric acid, silver nitrate, silver nitrate and ammonia, silver oxide and ammonia, strong oxidising agents, nitrogen dioxide. Can react dangerously with: bromoacetylene, chlorine acetylene, bromine trifluoride, chromium trioxide, chromyl chloride, oxiranes, fluorine, potassium tert-butoxide, lithium hydride, phosphorus trioxide, black platinum, zirconium (IV) chloride, zirconium (IV) iodide. Forms an explosive mixture with the air.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL: avoid exposure to sources of heat and naked flames.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product has a carcinogenic effect on human beings. Currently available data suggest a cause-effect relationship between human exposure to the substance contained in this product and cancer development.

ETHANOL
LD50 (Oral). > 5000 mg/kg Rat
LC50 (Inhalation). 120 mg/l/4h Pimephales promelas

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

12.3. Bioaccumulative potential.

ETHANOL
Partition coefficient: n-octanol/water. -0.35

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 112(b):
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
84-66-2 diethyl phthalate

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
84-66-2 diethyl phthalate

EPCRA 313 TRI:
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
67-63-0 PROPAN-2-OL

RCRA Code:
84-66-2 diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
64-17-5 ETHANOL
67-63-0 PROPAN-2-OL
84-66-2 diethyl phthalate

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
64-17-5 ETHANOL
67-63-0 PROPAN-2-OL
84-66-2 diethyl phthalate

New Jersey:
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
64-17-5 ETHANOL
67-63-0 PROPAN-2-OL
84-66-2 diethyl phthalate

New York:
84-66-2 diethyl phthalate

SECTION 15. Regulatory information. ... / >>

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
111-90-0	DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
84-66-2	diethyl phthalate
25265-71-8	oxydipropanol

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
84-66-2	diethyl phthalate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 4	Flammable liquid, category 4
Carc. 1A	Carcinogenicity, category 1A
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H227	Combustible liquid.
H350	May cause cancer.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization

SECTION 16. Other information. ... / >>

- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **87006/3**
Product name **THIS IS AN INVISIBLE SERUM**
IT'S FOR SATINY, TOUSLED LOOKS

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Skin sensitization, category 1 — May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H317 May cause an allergic skin reaction.

Precautionary statements:
Prevention:
P261 Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:

SECTION 2. Hazards identification. ... / >>

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P321	Specific treatment (see sect.4 on this label).
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
VITAMINA E/DL-ALPHA-TOCOPHEROL		
CAS. 10191-41-0	0.1 - 0.5	Skin sensitization, category 1 H317
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

SECTION 5. Firefighting measures. ... / >>

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

CYCLOHEXANE					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		5,0000 - 6,0000	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0080 - 1,0180	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	15.000,0000 - 30.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

CASTOROIL: avoid contact with strong oxidising agents.
CASTOROIL: avoid contact with strong oxidising agents.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

EUMULGIN CO 40

LD50 (Oral).	> 20000 mg/kg rat

EUTANOL G

LD50 (Oral).	> 39255 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL

LD50 (Oral).	> 4000 mg/kg rat
LD50 (Dermal).	1480 mg/kg rabbit

DERMOL 1

LD50 (Oral).	> 5000 mg/kg ratto

CYCLOHEXANE

LD50 (Oral).	> 5000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg Rabbit
LC50 (Inhalation).	13.9 mg/l/4h Rat

SECTION 11. Toxicological information. ... / >>

Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone
LD50 (Oral). > 10000 mg/kg rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
79-10-7 ACRYLIC ACID
ACGIH:: A4
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

SMARTGEL P110
LC50 - for Fish. > 100 mg/l/96h Danio rerio
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna

EUMULGIN CO 40
EC50 - for Crustacea. > 100 mg/l/48h Dafnia magna
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Desmodesmus subspicatus

EUTANOL G
LC50 - for Fish. > 5500 mg/l/96h Leuciscus idus
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Desmodesmus subspicatus (growth rate)

CYCLOHEXANE
LC50 - for Fish. 4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 32.7 mg/l/72h Chlorella vulgaris

12.2. Persistence and degradability.
SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPHATIC: tends to be distributed exclusively in the air where it is photodegradable.
The small amount that remains in the water tends to deposit at the bottom and is biodegraded; it is thus not bioaccumulated by fish. In the soil the substance remains absorbed and is unable to reach the subterranean layers.

DERMOL 1
Rapidly biodegradable.

CYCLOHEXANE
Solubility in water. mg/l 0.1 - 100
Rapidly biodegradable.

12.3. Bioaccumulative potential.
CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

EUMULGIN CO 40
Partition coefficient: n-octanol/water. -0.76 Log KOW

CYCLOHEXANE
Partition coefficient: n-octanol/water. 3.44

12.4. Mobility in soil.
CYCLOHEXANE: slightly mobile in soil.

SECTION 12. Ecological information. ... / >>

CYCLOHEXANE
Partition coefficient: soil/water. 2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
79-10-7 ACRYLIC ACID

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

EPCRA 313 TRI:

110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

RCRA Code:

110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
8001-79-4	CASTOROIL (Vegetable oil dust, Vegetable oil mist)
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
79-10-7	ACRYLIC ACID

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
79-10-7	ACRYLIC ACID

New Jersey:

56-81-5	GLICERINA FU 30 BE
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
79-10-7	ACRYLIC ACID

New York:

110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

SECTION 15. Regulatory information. ... / >>

110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
79-10-7	ACRYLIC ACID

California:

110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
79-10-7	ACRYLIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation

SECTION 16. Other information. ... / >>

- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
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- 6 NYCRR part 597
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This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **87007/3**
Product name **THIS IS A MEDIUM HOLD PLIABLE PASTE IT'S FOR THICK, INVISIBLE EFFECTS**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Serious eye damage, category 1 — Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
Prevention:
P280 Wear protective gloves / eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

SECTION 2. Hazards identification. ... / >>

P310 Immediately call a POISON CENTER / doctor / . . .

Storage:

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Disposal:

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2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

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Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Hydrocarbons, C4, 1,3-butadiene-free, polymd., tetraisobutylene fraction, hydrogenated		
CAS. 93685-80-4	5 - 9	Acute toxicity, category 4 H332, Aspiration hazard, category 1 H304
EUMULGIN B2/EUMULGIN B2 GS		
CAS. 68439-49-6	3 - 5	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318
EUMULGIN O5		
CAS. 68920-66-1	1 - 5	Skin irritation, category 2 H315, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
EMULSOL CE 55		
CAS. 68439-49-6	1 - 3	Serious eye damage, category 1 H318

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		WHITE	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		5,3000 - 6,6000	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9980 - 1,0080	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		40.000,0000 - 120.000,0000	
Explosive properties		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Oxidising properties: Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

CASTOROIL: avoid contact with strong oxidising agents.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
1,2-PROPANEDIOL: carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

CUTINA HR
LD50 (Oral). > 5000 mg/kg

EUMULGIN O5
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). 2000 mg/kg male rabbit
LC50 (Inhalation). > 1.6 mg/l/4h rat

EMULSOL CE 55
LD50 (Oral). > 2000 mg/kg rat

EUMULGIN B2/EUMULGIN B2 GS
LD50 (Oral). > 300 mg/kg

GLICOLE PROPILENICO
LD50 (Oral). 22000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg rabbit
LC50 (Inhalation). > 317042 mg/l rabbit

Hydrocarbons, C4, 1,3-butadiene-free, polymd., tetraisobutylene fraction, hydrogenated
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 3160 mg/kg Rabbit
LC50 (Inhalation). 1.73 mg/l/4h Rat

SECTION 11. Toxicological information. ... / >>

Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone
LD50 (Oral). > 10000 mg/kg rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

CUTINA HR
LC50 - for Fish. > 100 mg/l/96h

EUMULGIN O5
LC50 - for Fish. 108 mg/l/96h Danio rerio

EMULSOL CE 55
LC50 - for Fish. > 1 mg/l/96h Leuciscus idus

EUMULGIN B2/EUMULGIN B2 GS
LC50 - for Fish. > 1 mg/l/96h (dato fornito da Basf)

GLICOLE PROPILENICO
LC50 - for Fish. > 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. 18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants. 24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea. 13020 mg/l Ceriodaphnia sp. (reproduction or growth_7 d)

12.2. Persistence and degradability.

EUMULGIN O5
Solubility in water. > 75 mg/l a 20°c
Rapidly biodegradable.

EUMULGIN B2/EUMULGIN B2 GS
Rapidly biodegradable.

GLICOLE PROPILENICO
Rapidly biodegradable.

Hydrocarbons, C4, 1,3-butadiene-free, polymd., tetraisobutylene fraction, hydrogenated
Solubility in water. < 100 mg/l 20°C
Rapidly biodegradable.

12.3. Bioaccumulative potential.

GLICOLE PROPILENICO
Partition coefficient: n-octanol/water. -1.07 Log KOW
BCF. 0.09 stimato

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
25322-68-3 POLYETHYLENGLYCOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
25322-68-3 POLYETHYLENGLYCOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
25322-68-3 POLYETHYLENGLYCOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
8001-79-4 CASTOROIL (Vegetable oil dust, Vegetable oil mist)
56-81-5 Glycerol
60676-86-0 Silica, vitreous

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
57-55-6 GLICOLE PROPILENICO
25322-68-3 POLYETHYLENGLYCOL (Glycol ethers)
56-81-5 Glycerol
60676-86-0 Silica, vitreous

New Jersey:
57-55-6 GLICOLE PROPILENICO
25322-68-3 POLYETHYLENGLYCOL (Glycol ethers)
56-81-5 Glycerol
60676-86-0 Silica, vitreous

New York:
No component(s) listed.

Pennsylvania:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
57-55-6 GLICOLE PROPILENICO
25322-68-3 POLYETHYLENGLYCOL (Glycol ethers)
56-81-5 Glycerol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

SECTION 15. Regulatory information. ... / >>

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3

SECTION 16. Other information. ... / >>

- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **87008/31**
Product name **THIS IS A MEDIUM HOLD FINISHING GUM IT'S FOR MAT,ELASTIC TEXTURES**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P280 Wear protective gloves / eye protection / face protection.

Response:

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER / doctor / . . .

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
EUMULGIN B2/EUMULGIN B2 GS		
CAS. 68439-49-6	5 - 9	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318
Hydrocarbons, C4, 1,3-butadiene-free, polymd., tetraisobutylene fraction, hydrogenated		
CAS. 93685-80-4	1 - 5	Acute toxicity, category 4 H332, Aspiration hazard, category 1 H304
EUMULGIN B 1		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
CAOLINO UW 93 CBC		
CAS. 1332-58-7	1 - 5	
ADVANTAGE S		
CAS. 102972-64-5	1 - 5	Specific target organ toxicity - repeated exposure, category 2 H373, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

SECTION 5. Firefighting measures. ... / >>

UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

CAOLINO UW 93 CBC

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	2	0	0	0	RESP.
OSHA	USA	15				INHAL.
OSHA	USA	5				RESP.
CAL/OSHA	USA	2				RESP.
NIOSH	USA	10				INHAL.
NIOSH	USA	5				RESP.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	WAXY CREAM
Colour	WHITE CREAM
Odour	REF. STD.
Odour threshold.	Not available.
pH.	5,5000 - 6,5000
Melting point / freezing point.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0150 - 1,0250	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		N.D.	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

CASTOROIL: avoid contact with strong oxidising agents.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
1,2-PROPANEDIOL: carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

ADVANTAGE S

LD50 (Oral).	> 5000 mg/kg rat
LD50 (Dermal).	> 5000 mg/kg ratto

SECTION 11. Toxicological information. ... / >>

EUMULGIN B2/EUMULGIN B2 GS
LD50 (Oral). > 300 mg/kg

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

GLICOLE PROPILENICO
LD50 (Oral). 22000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg rabbit
LC50 (Inhalation). > 317042 mg/l rabbit

Hydrocarbons, C4, 1,3-butadiene-free, polymd., tetraisobutylene fraction, hydrogenated
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 3160 mg/kg Rabbit
LC50 (Inhalation). 1.73 mg/l/4h Rat

Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone
LD50 (Oral). > 10000 mg/kg rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

ADVANTAGE S
LC50 - for Fish. 24.1 mg/l/96h Oncorhynchus mykiss

EUMULGIN B 1
LC50 - for Fish. 10 mg/l/96h Leuciscus idus
EC50 - for Algae / Aquatic Plants. 1 mg/l Scenedesmus subspicatus
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l Scenedesmus subspicatus

EUMULGIN B2/EUMULGIN B2 GS
LC50 - for Fish. > 1 mg/l/96h (dato fornito da Basf)

GLICOLE PROPILENICO
LC50 - for Fish. > 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. 18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants. 24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea. 13020 mg/l Ceriodaphnia sp. (reproduction or growth_7 d)

12.2. Persistence and degradability.

ADVANTAGE S
NOT rapidly biodegradable.

EUMULGIN B2/EUMULGIN B2 GS
Rapidly biodegradable.

GLICOLE PROPILENICO
Rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

Hydrocarbons, C4, 1,3-butadiene-free, polymd., tetraisobutylene fraction, hydrogenated
Solubility in water. < 100 mg/l 20°C
Rapidly biodegradable.

12.3. Bioaccumulative potential.

GLICOLE PROPILENICO
Partition coefficient: n-octanol/water. -1.07 Log KOW
BCF. 0.09 stimato

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
25322-68-3 POLYETHYLENGLYCOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
25322-68-3 POLYETHYLENGLYCOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
25322-68-3 POLYETHYLENGLYCOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
8001-79-4	CASTOROIL (Vegetable oil dust, Vegetable oil mist)
64-17-5	ETHANOL
56-81-5	Glycerol
60676-86-0	Silica, vitreous

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1332-58-7	CAOLINO UW 93 CBC
57-55-6	GLICOLE PROPILENICO
25322-68-3	POLYETHYLENGLYCOL (Glycol ethers)
64-17-5	ETHANOL
56-81-5	Glycerol
60676-86-0	Silica, vitreous

New Jersey:

1332-58-7	CAOLINO UW 93 CBC
57-55-6	GLICOLE PROPILENICO
25322-68-3	POLYETHYLENGLYCOL (Glycol ethers)

SECTION 15. Regulatory information. ... / >>

64-17-5	ETHANOL
56-81-5	Glycerol
60676-86-0	Silica, vitreous

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
1332-58-7	CAOLINO UW 93 CBC
57-55-6	GLICOLE PROPILENICO
25322-68-3	POLYETHYLENGLYCOL (Glycol ethers)
64-17-5	ETHANOL
56-81-5	Glycerol

California:

64-17-5	ETHANOL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency

SECTION 16. Other information. ... / >>

- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **87009/31**
Product name **THIS IS A STRONG DRY WAX**
IT'S FOR DEFINED MAT TEXTURES

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.

SECTION 2. Hazards identification. ... / >>

P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see sect.4 on this label).
P333+P313 If skin irritation or rash occurs: get medical advice.
P337+P313 If eye irritation persists: get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
CAOLINO UW 93 CBC		
CAS. 1332-58-7	5 - 9	
Hydrocarbons, C4, 1,3-butadiene-free, polymd., tetraisobutylene fraction, hydrogenated		
CAS. 93685-80-4	1 - 5	Acute toxicity, category 4 H332, Aspiration hazard, category 1 H304
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 3	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318
[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one		
CAS. 32388-55-9	0 - 0.25	Skin sensitization, category 1B H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
CAS. 54464-57-2	0.1 - 0.5	Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

CAOLINO UW 93 CBC

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	2	0	0	0	RESP.
OSHA	USA	15				INHAL.
OSHA	USA	5				RESP.
CAL/OSHA	USA	2				RESP.
NIOSH	USA	10				INHAL.
NIOSH	USA	5				RESP.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

SECTION 8. Exposure controls/personal protection. ... / >>

ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation.
Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

CUTINA MD
LD50 (Oral). > 5000 mg/kg

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 5000 mg/kg Rabbit

Hydrocarbons, C4, 1,3-butadiene-free, polymd., tetraisobutylene fraction, hydrogenated
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 3160 mg/kg Rabbit
LC50 (Inhalation). 1.73 mg/l/4h Rat

Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone
LD50 (Oral). > 10000 mg/kg rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Alcohols, C16-18, ethoxylated
LC50 - for Fish. > 1 mg/l/96h Leuciscus idus

12.2. Persistence and degradability.

Hydrocarbons, C4, 1,3-butadiene-free, polymd., tetraisobutylene fraction, hydrogenated
Solubility in water. < 100 mg/l 20°C
Rapidly biodegradable.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	Glycerol

Minnesota:

1332-58-7	CAOLINO UW 93 CBC
56-81-5	Glycerol

New Jersey:

1332-58-7	CAOLINO UW 93 CBC
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

1332-58-7	CAOLINO UW 93 CBC
56-81-5	Glycerol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3

SECTION 16. Other information. ... / >>

Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)

SECTION 16. Other information. ... / >>

- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **87010/31**
Product name **THIS IS ASTRONG MOULDING CLAY**
IT'S FOR A FIRM, MAT FINISH

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.

SECTION 2. Hazards identification. ... / >>

P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .

P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER / doctor / . . .

P321 Specific treatment (see sect.4 on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
CAOLINO UW 93 CBC		
CAS. 1332-58-7	9 - 24	
DEHYDOL LS 4		
CAS. 68439-50-9	5 - 9	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Hydrocarbons, C4, 1,3-butadiene-free, polymd., tetraisobutylene fraction, hydrogenated		
CAS. 93685-80-4	5 - 9	Acute toxicity, category 4 H332, Aspiration hazard, category 1 H304
[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one		
CAS. 32388-55-9	0 - 0.25	Skin sensitization, category 1B H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
CAS. 54464-57-2	0.1 - 0.5	Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

CAOLINO UW 93 CBC

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	2	0	0	0	RESP.
OSHA	USA	15				INHAL.
OSHA	USA	5				RESP.
CAL/OSHA	USA	2				RESP.
NIOSH	USA	10				INHAL.
NIOSH	USA	5				RESP.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

SECTION 8. Exposure controls/personal protection. ... / >>

ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL: it is hygroscopic and stable under normal conditions; at high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

CASTOROIL: avoid contact with strong oxidising agents.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
1,2-PROPANEDIOL: carbon oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

DEHYDOL LS 4
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). 2000 mg/kg male rabbit
LC50 (Inhalation). > 1.6 mg/l/4h rat

CUTINA MD
LD50 (Oral). > 5000 mg/kg

GLICOLE PROPILENICO
LD50 (Oral). 22000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg rabbit
LC50 (Inhalation). > 317042 mg/l rabbit

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 5000 mg/kg Rabbit

isopropyl myristate
LD50 (Oral). > 2000 mg/kg rat
LC50 (Inhalation). > 5.3 mg/l/4h rat

Hydrocarbons, C4, 1,3-butadiene-free, polymd., tetraisobutylene fraction, hydrogenated
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 3160 mg/kg Rabbit
LC50 (Inhalation). 1.73 mg/l/4h Rat

Castor oil, hydrogenated
LD50 (Oral). > 5000 mg/kg

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

DEHYDOL LS 4
LC50 - for Fish. 0.876 mg/l/96h Danio rerio
EC50 - for Crustacea. 0.39 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 1.2 mg/l/72h

GLICOLE PROPILENICO
LC50 - for Fish. > 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. 18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants. 24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea. 13020 mg/l Ceriodaphnia sp. (reproduction or growth_7 d)

SECTION 12. Ecological information. ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish.	1.3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea.	1.38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants.	> 2.6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish.	0.3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea.	0.448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants.	2.6 mg/l 72h

[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one

LC50 - for Fish.	2.3 mg/l/96h
EC50 - for Crustacea.	0.86 mg/l/48h

isopropyl myristate

LC50 - for Fish.	> 1000 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea.	< 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	< 100 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Crustacea.	> 100 mg/l 21d - Daphnia magna

Castor oil, hydrogenated

LC50 - for Fish.	> 100 mg/l/96h

12.2. Persistence and degradability.

DEHYDOL LS 4
Rapidly biodegradable.

GLICOLE PROPILENICO
Rapidly biodegradable.

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water. 2.68 mg/l
Rapidly biodegradable.

[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one
Solubility in water. 6 mg/l a 23°C
NOT rapidly biodegradable.

Hydrocarbons, C4, 1,3-butadiene-free, polymd., tetraisobutylene fraction, hydrogenated
Solubility in water. < 100 mg/l 20°C
Rapidly biodegradable.

12.3. Bioaccumulative potential.

DEHYDOL LS 4
Partition coefficient: n-octanol/water. 4.75

GLICOLE PROPILENICO
Partition coefficient: n-octanol/water. -1.07 Log KOW
BCF. 0.09 stimato

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

8001-79-4	CASTOROIL (Vegetable oil dust, Vegetable oil mist)

Minnesota:

1332-58-7	CAOLINO UW 93 CBC
57-55-6	GLICOLE PROPILENICO

New Jersey:

1332-58-7	CAOLINO UW 93 CBC
57-55-6	GLICOLE PROPILENICO

New York:
No component(s) listed.

Pennsylvania:

1332-58-7	CAOLINO UW 93 CBC
57-55-6	GLICOLE PROPILENICO

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1

SECTION 16. Other information. ... / >>

Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act

SECTION 16. Other information. ... / >>

- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **87011**
Product name **THIS IS AN OIL NON OIL**
IT'S FOR NATURAL, TAMED TEXTURES

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Flammable liquid, category 4 Combustible liquid.
Hazard pictograms: --
Signal words: Warning

Hazard statements:
H227 Combustible liquid.

Precautionary statements:
Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves / eye protection / face protection.
Response:
P370+P378 In case of fire: use . . . to extinguish.
Storage:
P403+P235 Store in a well-ventilated place. Keep cool.
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
ETHANOL		
CAS. 64-17-5	1 - 5	Flammable liquid, category 2 H225
Cationic Hydroxyethyl cellulose		
CAS. 68610-92-4	1 - 5	Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

HAND PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		TRANSPARENT LIQUID	
Colour		FROM COLOURLESS TO YELLOWISH	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		3,9000 - 4,9000	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	73 °C.	(163,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0050	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		120,0000 - 250,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

ETHANOL
LD50 (Oral). > 5000 mg/kg Rat
LC50 (Inhalation). 120 mg/l/4h Pimephales promelas

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

12.3. Bioaccumulative potential.

ETHANOL
Partition coefficient: n-octanol/water. -0.35

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
84-66-2 diethyl phthalate

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
67-63-0 PROPAN-2-OL

SECTION 15. Regulatory information. ... / >>

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

84-66-2	diethyl phthalate

EPCRA 313 TRI:

111-90-0	DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:

84-66-2	diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
84-66-2	diethyl phthalate

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
84-66-2	diethyl phthalate

New Jersey:

111-90-0	DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
84-66-2	diethyl phthalate

New York:

84-66-2	diethyl phthalate

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
111-90-0	DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
84-66-2	diethyl phthalate
25265-71-8	oxydipropanol

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
84-66-2	diethyl phthalate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

SECTION 15. Regulatory information. ... / >>

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 4	Flammable liquid, category 4
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H227	Combustible liquid.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597

SECTION 16. Other information. ... / >>

- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 08 / 10 / 11.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**87012/3**
Product name	**THIS IS A MEDIUM HOLD MODELING GEL IT'S FOR FULL BODIED, WET LOOKS**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information.

Hazard pictograms:	--
Signal words:	--
Hazard statements:	--

Precautionary statements:

Prevention:	--
Response:	--
Storage:	--
Disposal:	--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Cationic Hydroxyethyl cellulose		
CAS. 68610-92-4	1 - 5	Hazardous to the aquatic environment, chronic toxicity, category 2 H411

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LIQUID GEL		
Colour		LIGHT YELLOW		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Vapour density	Not available.
Relative density.	Not available.
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	9.000,0000 - 18.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

ZEMEA PROPANEDIOL

LD50 (Oral).	15000 mg/kg rat
LD50 (Dermal).	> 20000 mg/kg rabbit
LC50 (Inhalation).	> 5 mg/l/4h rat

Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone

LD50 (Oral).	> 10000 mg/kg rat

Carcinogenicity Assessment:

67-63-0	ALCOOL ISOPROPILICO
IARC:3	
5989-27-5	(R)-p-mentha-1,8-diene
IARC:3	

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)

SECTION 12. Ecological information. ... / >>

EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
67-63-0 PROPAN-2-OL

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
67-63-0 PROPAN-2-OL

New Jersey:
67-63-0 PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
67-63-0 PROPAN-2-OL

California:
67-63-0 PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

SECTION 15. Regulatory information. ... / >>

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
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- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition

SECTION 16. Other information. ... / >>

- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **87013/3**
Product name **THIS IS A STRONG HOLD CREAM GEL IT'S FOR FIRM PLISHED LOOKS**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Specific target organ toxicity - repeated exposure, category 2 — May cause damage to organs through prolonged or repeated exposure.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:
Prevention:
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
Response:
P314 Get medical advice if you feel unwell.

SECTION 2. Hazards identification. ... / >>

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
ADVANTAGE S		
CAS. 102972-64-5	1 - 5	Specific target organ toxicity - repeated exposure, category 2 H373, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

SECTION 8. Exposure controls/personal protection. ... / >>

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		VISCOUS GEL		
Colour		WHITE		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 50.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

SECTION 11. Toxicological information. ... / >>

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.

ADVANTAGE S
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 5000 mg/kg ratto

EUMULGIN CO 40
LD50 (Oral). > 20000 mg/kg rat

PANTENOLO D
LD50 (Oral). > 10000 mg/kg rat

Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone
LD50 (Oral). > 10000 mg/kg rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

ADVANTAGE S
LC50 - for Fish. 24.1 mg/l/96h Oncorhynchus mykiss

EUMULGIN CO 40
EC50 - for Crustacea. > 100 mg/l/48h Dafnia magna
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Desmodesmus subspicatus

PANTENOLO D
LC50 - for Fish. > 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish. > 1000 mg/l 96h
Chronic NOEC for Crustacea. 100 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 100 mg/l 72h

12.2. Persistence and degradability.

ADVANTAGE S
NOT rapidly biodegradable.

Syrups, corn, hydrogenated
Rapidly biodegradable.

12.3. Bioaccumulative potential.

EUMULGIN CO 40
Partition coefficient: n-octanol/water. -0.76 Log KOW

PANTENOLO D
Partition coefficient: n-octanol/water. -106 mg/l Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	Glycerol

New Jersey:

56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	Glycerol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website

SECTION 16. Other information. ... / >>

- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **87014/3**
Product name **IT'S A CURL BUILDING SERUM**
IT'S FOR FLEXIBLE, CURLY LOOKS

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information.

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
METHANOL		
CAS. 67-56-1	0 - 0.5	Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	260	200			SKIN.
TLV-ACGIH	-	262	200	328	250	
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN.
NIOSH	USA	260	200	325	250	SKIN.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection. ... / >>

HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM	
Colour		white	
Odour		REF. STD.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	60 °C.	(140 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		9.000,0000 - 20.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

PANTENOLO D
LD50 (Oral). > 10000 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

PANTENOLO D

LC50 - for Fish.	> 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	> 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	> 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish.	> 1000 mg/l 96h
Chronic NOEC for Crustacea.	100 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants.	100 mg/l 72h

12.2. Persistence and degradability.

METHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

12.3. Bioaccumulative potential.

PANTENOLO D
Partition coefficient: n-octanol/water. -106 mg/l Log KOW

METHANOL
Partition coefficient: n-octanol/water. -0.77
BCF. 0.2

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
67-56-1 METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

67-56-1	METHANOL
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

67-56-1	METHANOL

EPCRA 313 TRI:

67-56-1	METHANOL
67-63-0	PROPAN-2-OL

RCRA Code:

67-56-1	METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

New York:

67-56-1	METHANOL

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

California:

67-56-1	METHANOL
67-63-0	PROPAN-2-OL

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

67-56-1	METHANOL D

SECTION 15. Regulatory information. ... / >>

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H225	Highly flammable liquid and vapour.
H370	Causes damage to organs.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition

SECTION 16. Other information. ... / >>

- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **87015/3**
Product name **THIS IS A RELAXING MOISTURIZING FLUID IT'S FOR STRAIGHT, CONTROLLED LOOKS**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Specific target organ toxicity - repeated exposure, category 2 — May cause damage to organs through prolonged or repeated exposure.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:
Prevention:
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
Response:
P314 Get medical advice if you feel unwell.

SECTION 2. Hazards identification. ... / >>

Storage:

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Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
decamethylcyclopentasiloxane		
CAS. 541-02-6	1 - 5	
ADVANTAGE S		
CAS. 102972-64-5	1 - 5	Specific target organ toxicity - repeated exposure, category 2 H373, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

SECTION 5. Firefighting measures. ... / >>

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

decamethylcyclopentasiloxane

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	0	10	0	0

SECTION 8. Exposure controls/personal protection. ... / >>

CYCLOHEXANE					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM		
Colour		WHITE		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	20.000,0000 - 35.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

SILICONE SILSHINE 151

LD50 (Oral).	> 5000 mg/kg rat
LD50 (Dermal).	> 2000 mg/kg rabbit

ADVANTAGE S

LD50 (Oral).	> 5000 mg/kg rat
LD50 (Dermal).	> 5000 mg/kg ratto

ZEMEA PROPANEDIOL

LD50 (Oral).	15000 mg/kg rat
LD50 (Dermal).	> 20000 mg/kg rabbit
LC50 (Inhalation).	> 5 mg/l/4h rat

XIAMET. PMX-200/SIL. 200/350CS350 CS

LD50 (Oral).	> 15400 mg/kg rat
LD50 (Dermal).	> 2000 mg/kg rabbit

PANTENOLO D

LD50 (Oral).	> 10000 mg/kg rat

SECTION 11. Toxicological information. ... / >>

CYCLOHEXANE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg Rabbit
LC50 (Inhalation). 13.9 mg/l/4h Rat

decamethylcyclopentasiloxane
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 8.67 mg/l/4h

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
79-10-7 ACRYLIC ACID
ACGIH:: A4
IARC:3
64-17-5 ETHANOL
ACGIH:: A3
IARC:1

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

ADVANTAGE S
LC50 - for Fish. 24.1 mg/l/96h Oncorhynchus mykiss

SMARTGEL P110
LC50 - for Fish. > 100 mg/l/96h Danio rerio
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna

ZEMEA PROPANEDIOL
LC50 - for Fish. > 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea. 7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 1600 mg/l/72h Algae

XIAMET. PMX-200/SIL. 200/350CS350 CS
EC50 - for Crustacea. > 200 mg/l/48h Daphnia magna

PANTENOLO D
LC50 - for Fish. > 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish. > 1000 mg/l 96h
Chronic NOEC for Crustacea. 100 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 100 mg/l 72h

CYCLOHEXANE
LC50 - for Fish. 4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 32.7 mg/l/72h Chlorella vulgaris

decamethylcyclopentasiloxane
LC50 - for Fish. > 16 mg/l/96h
EC50 - for Crustacea. > 2.9 mg/l/48h
EC10 for Algae / Aquatic Plants. > 12 mg/l/72h 96 h
Chronic NOEC for Fish. > 14 mg/l 90 d
Chronic NOEC for Crustacea. > 15 mg/l 21 d

12.2. Persistence and degradability.
CYCLOHEXANE: not easily biodegradable.

SECTION 12. Ecological information. ... / >>

ADVANTAGE S
NOT rapidly biodegradable.

CYCLOHEXANE
Solubility in water. mg/l 0.1 - 100
Rapidly biodegradable.

decamethylcyclopentasiloxane
Solubility in water. < 0.1 mg/l

12.3. Bioaccumulative potential.
CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

PANTENOLO D
Partition coefficient: n-octanol/water. -106 mg/l Log KOW

CYCLOHEXANE
Partition coefficient: n-octanol/water. 3.44

12.4. Mobility in soil.
CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE
Partition coefficient: soil/water. 2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
79-10-7 ACRYLIC ACID

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
110-82-7 CYCLOHEXANE
79-10-7 ACRYLIC ACID

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
110-82-7 CYCLOHEXANE
79-10-7 ACRYLIC ACID

EPCRA 313 TRI:
110-82-7 CYCLOHEXANE
79-10-7 ACRYLIC ACID

RCRA Code:
110-82-7 CYCLOHEXANE
79-10-7 ACRYLIC ACID

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA

SECTION 15. Regulatory information. ... / >>

110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
124-68-5	2-AMINO-2-METHYLPROPANOL
79-10-7	ACRYLIC ACID
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
79-10-7	ACRYLIC ACID
56-81-5	Glycerol

New Jersey:

110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
124-68-5	2-AMINO-2-METHYLPROPANOL
79-10-7	ACRYLIC ACID
56-81-5	Glycerol

New York:

110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
124-68-5	2-AMINO-2-METHYLPROPANOL
79-10-7	ACRYLIC ACID
56-81-5	Glycerol

California:

110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
79-10-7	ACRYLIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.

SECTION 16. Other information. ... / >>

H373	May cause damage to organs through prolonged or repeated exposure.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
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- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".

SECTION 16. Other information. ... / >>

- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **87016/3**
Product name **SEA SALT SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

ZEMEA PROPANEDIOL

LC50 - for Fish.	> 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea.	7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	1600 mg/l/72h Algae

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

TSCA:
All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
84-66-2 diethyl phthalate

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
84-66-2 diethyl phthalate

EPCRA 313 TRI:
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)

RCRA Code:
84-66-2 diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
7631-86-9 AMORPHOUS SILICATE HYDRATE
84-66-2 diethyl phthalate

Minnesota:
7631-86-9 AMORPHOUS SILICATE HYDRATE
84-66-2 diethyl phthalate

New Jersey:
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
84-66-2 diethyl phthalate

New York:
84-66-2 diethyl phthalate

Pennsylvania:
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)
7631-86-9 AMORPHOUS SILICATE HYDRATE
84-66-2 diethyl phthalate
25265-71-8 oxydipropanol

California:
7631-86-9 AMORPHOUS SILICATE HYDRATE
84-66-2 diethyl phthalate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

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Provide appointed staff with adequate training on how to use chemical products.

davines S.p.A.
via Ravasini 9/A 43126 Parma – Italy
T: +39 0521 965611 F: +39 0521 292597
info@davines.it – www.davines.com
Codice Fiscale e Partita IVA 00692360340
R.E.A. PR 156502
Capitale soc. € 2.500.000,00 int. vers.

Material Safety Data Sheet	**U.S. Department of Labor**
May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910, 1200. Standart must be consulted for specific requirements.	Occupational Safety and Health Administration(non-Mandatory form) Form approved OMB N°1218-0072

IDENTITY (As used on Label and List)

THIS IS A TEXTURIZING DUST
IT'S FOR INSTANT VOLUME

SECTION I	Emergency Telephone number Telephone Number for information **0039.0521.965611**
Manufacturer's name **DAVINES S.p.A**	
Address (Street, Number, ZIP Code, City, State) **Via Ravasini, 9/A** **43126 PARMA - ITALY**	Date prepared **June 24th 2014** Signature of preparer **ER**

SECTION II - PHYSICAL/CHEMICAL CHARACTERISTICS	
Physical state: Powder Odor: Odourless Color: White	Mixture to avoid: avoid mixture with other type of products or similar products belonging to other companies or with substances not taken in consideration in the directions

SECTION III - FIRE AND EXPLOSION HAZARD DATA	
Extinguishing Media: none. Special fire fighting procedures: none Stability: Stable	Flash point: none Unusual fire and explosion hazards: none

SECTION IV - SPILL, LEAK AND DISPOSAL PROCEDURES	
Precautions if material is spilled or released: contain spill and promptly clean up; flush with water and wipe with towel or rinse to drain; floor can be slippery when wet.	Waste disposal methods: Follow all federal, state and local guidelines.

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Codice Fiscale e Partita IVA 00692360340
R.E.A. PR 156502
Capitale soc. € 2.500.000,00 int. vers.

SECTION V - PROTECTION INFORMATION

Ventilation: Use in a well ventilated area.

Respiratory protection: do not inhale

Skin protection: none special, in normal condition of use if directions and application are followed

Eye protection: avoid contact with the eyes; the contact may cause slight eye irritation and discomfort

SECTION VI -HEALTH HAZARD DATA

Contact with skin: no special first aid or emergency measure required

Inhalation: no danger of use in normal condition in a well ventilated area.

Effects of overexposure: it may cause mild irritation to skin

Accidental ingestion: it may cause nausea if ingested: dilute with water or milk; contact a poison control center

Eyes contact: remove contact lenses if used; flush immediately with plenty of water for 15 minutes; get medical attention.

SECTION VII - SPECIAL PRECAUTIONS

Storage and handling: keep in dry and clean place, keep away from light and heat source; keep out of reach of children.

The information presented here regarding the specific materials described and may not be valid for this material used in combination with any other materials or in any process. The information, in this MSDS was obtained from current and reputable sources. It is the user's responsibility both to determine safe conditions for the use of this product and to assume liability for loss, injury, damage, or expense resulting from improper use of this product

Material Safety Data Sheet

Product: THIS IS A STRONG HAIRSPRAY
IT'S FOR A LONG LASTING, FIRM HOLD

MSDS Date: 7/29/13
Product Name: 55 % VOC Hair Spray
Manufacturer: KIK Indiana, KIK Custom Products.
Code: B-9082D

I. Product and Company Description

KIK Indiana, KIK Custom Products.
1919 Superior Street
Elkhart, IN 46516

Emergency Phone/Product Information:
Chem Tel (800) 255-3924

Chemical Name or Synonym:
NA

Molecular Formula:
NA

II. Chemical Composition

Chemical	CAS #	% Wt. Composition
Ethanol denatured	64-17-5	45 - 70
1,1 Diflouroethane	75-35-6	25 - 45

III. Hazards Identification

A. Emergency Overview:

Physical Appearance and Odor: Clear liquid, characteristic

B. Potential Health Effects:

Acute Eye:
Direct eye contact may cause irritation.

Product: THIS IS A STRONG HAIRSPRAY

Acute Skin:
May cause irritation.

Acute Inhalation:
Inhalation of vapors may produce anaesthetic effects and feeling of euphoria. Prolonged exposure can cause rapid breathing, headache, dizziness, narcosis, unconsciousness and death from asphyxiation, depending on concentration and time of exposure.

Acute Ingestion:
If swallowed, may cause irritation. Ingestion of large quantities can be hazardous.

Chronic Effects:
None known

Medical Conditions Aggravated by Effects:
None

IV. First Aid Measures

First Aid Measures for Accidental:

Eye Exposure:
Immediately flush with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

Skin Exposure:
Wash affected area with soap and water. If irritation develops, seek medical attention.

Inhalation:
Remove to fresh air. Seek medical attention if necessary.

Ingestion:
Contact a poison control center for instructions.

V. Fire Fighting Measures

Fire Hazard Data:

Flash Point: < -20C

Method Used: TCC

Flammability Limits (vol/vol%): **Lower:** N/A **Upper:** N/A

Autoignition Temperature: ND

Product: THIS IS A STRONG HAIRSPRAY

Extinguishing Media:

On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide, dry chemical or water spray. Water can be used to cool fire exposed containers.

Special Fire Fighting Procedures:

Keep personnel removed from area and upwind of fire. Wear full fire-fighting turn-out gear and respiratory protection.

Unusual Fire and Explosion Hazards:

Prolonged exposure to temperatures above 130F may cause cans to burst.

VI. Accidental Release Measures

Cleanup and Disposal of Spill:

Use personal protective equipment (see Section VIII) when cleaning spill. Contain spilled material in the most convenient and safe manner. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations.

VII. Handling and Storage

Handling:

Use with adequate ventilation. Avoid eye and skin contact. Avoid inhaling vapors.

Storage:

Store in cool, dry, well-ventilated place.

VIII. Exposure Controls / Personal Protection

Exposure Guidelines:

	Exposure Limits		
Component	**ACGIH**	**NIOSH**	**OSHA-PELs**
Ethanol			1000 ppm
1, 1 Diflouroethane			1000 ppm

Engineering Controls:

Ventilation should be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the MSDS. Due to the nature of this product, there should be little exposure to it under anticipated use conditions.

Respiratory Protection:

Product: THIS IS A STRONG HAIRSPRAY

None required for normal use.

Eye / Face Protection:

Wear safety glasses with side shields or goggles.

Skin Protection:

Wear chemical resistant gloves and protective clothing to minimize skin contact.

IX. Physical and Chemical Properties

Physical Appearance:	Clear Liquid
Odor:	Characteristic
pH:	NA
Specific Gravity:	0.83
Percent Solids by Weight:	ND
Percent Volatile Organic Compound (VOC):	< 55
Water Solubility:	ND
Boiling Point:	ND
Melting Point Range:	ND
Vapor Density:	ND
Vapor Pressure:	ND
Percent Volatile by Volume:	> 98
Evaporation Rate:	ND

X. Stability and Reactivity

Chemical Stability:

Stable under standard use and storage conditions.

Conditions to Avoid:

Temperatures above 130F, ignition sources.

Materials / Chemicals to be Avoided:

None known.

Product: THIS IS A STRONG HAIRSPRAY

Hazardous Decomposition Products:

Carbon monoxide, volatile hydrocarbon vapors

Hazardous Polymerization:

Will not occur.

XI. Toxicological Information

Carcinogenicity:

This product is not identified to be a carcinogen by ACGIH, IARC or NTP.

Acute Oral Toxicity:

Acute Dermal Toxicity:

Acute Inhalation Toxicity:

Chronic Toxicity:

Not Determined

XII. Ecological Information

Ecotoxicological Information:

Degradation:	Not Determined
Accumulation:	Not Determined
Fish-Toxicity:	

Product: THIS IS A STRONG HAIRSPRAY

Chemical Fate Information:
Not Determined

XIII. Disposal Consideration

Waste Disposal Method:
Discard any product, residue, disposable container or liner in full compliance with federal, state and local regulations. The state and local regulations may differ from federal regulatory requirements and laws may change or be reinterpreted. This information only applies to the material as manufactured. Processing, use, or contamination may make the information inappropriate, inaccurate or incomplete. Responsibility for proper waste disposal is with the

owner of the waste.

Container Handling and Disposal:
Dispose of container and unused contents in accordance with federal, state and local regulations.

XIV. Transportation Information

US Department of Transportation Shipping Name:

US Department of Transportation	**Proper Shipping Name**	Consumer Commodity ORM-D
	Hazard Class	NA
	ID Number	NA
	Packaging Group	NA
	Technical Shipping Name	NA

XV. Regulatory Information

Federal Regulations:

SARA Title III Hazard Class

Fire Hazard:
Reactive Hazard:
Release of Pressure:
Acute Health Hazard:
Chronic Health Hazard:

SARA

Section 302 (RQ)

Section 302 (TPQ)

Product: THIS IS A STRONG HAIRSPRAY

Section 313

TSCA

Other Regulations:

State

California Prop. 65: this product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm:

The components with an X are present on the respective state's Right To Know lists:

Component	MA	PA	MI	NJ

XVI. Other Information

Hazardous Materials Information System - HMIS

Health Hazard:	1
Flammability:	2
Reactivity:	1

OSHA - Occupational Safety and Health Administration
TLV - Threshold Limit Value
PEL - Permissible Exposure Limit
TWA - Time Weighted Average
NTP - National Toxicology Program
IARC - International Agency for Research on Cancer

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Material Safety Data Sheet

Product: THIS IS A STRONG HAIRSPRAY

Revisions: new

Material Safety Data Sheet

Product: THIS IS A MEDIUM HAIRSPRAY
IT'S FOR WORKABLE, SHINY LOOKS

MSDS Date: 7/29/13
Product Name: 55 % VOC Hair Spray
Manufacturer: KIK Indiana, KIK Custom Products.
Code: B-9084

I. Product and Company Description

KIK Indiana, KIK Custom Products.
1919 Superior Street
Elkhart, IN 46516

Emergency Phone/Product Information:
Chem Tel (800) 255-3924

Chemical Name or Synonym:
NA

Molecular Formula:
NA

II. Chemical Composition

Chemical	CAS #	% Wt. Composition
Ethanol denatured	64-17-5	45 - 70
1,1 Diflouroethane	75-35-6	25 - 45

III. Hazards Identification

A. Emergency Overview:

Physical Appearance and Odor: Clear liquid, characteristic

B. Potential Health Effects:

Acute Eye:
Direct eye contact may cause irritation.

Product: THIS IS A MEDIUM HAIRSPRAY

Acute Skin:
May cause irritation.

Acute Inhalation:
Inhalation of vapors may produce anaesthetic effects and feeling of euphoria. Prolonged exposure can cause rapid breathing, headache, dizziness, narcosis, unconsciousness and death from asphyxiation, depending on concentration and time of exposure.

Acute Ingestion:
If swallowed, may cause irritation. Ingestion of large quantities can be hazardous.

Chronic Effects:
None known

Medical Conditions Aggravated by Effects:
None

IV. First Aid Measures

First Aid Measures for Accidental:

Eye Exposure:
Immediately flush with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

Skin Exposure:
Wash affected area with soap and water. If irritation develops, seek medical attention.

Inhalation:
Remove to fresh air. Seek medical attention if necessary.

Ingestion:
Contact a poison control center for instructions.

V. Fire Fighting Measures

Fire Hazard Data:

Flash Point: < -20C

Method Used: TCC

Flammability Limits (vol/vol%): **Lower:** N/A **Upper:** N/A

Autoignition Temperature: ND

Product: THIS IS A MEDIUM HAIRSPRAY

Extinguishing Media:

On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide, dry chemical or water spray. Water can be used to cool fire exposed containers.

Special Fire Fighting Procedures:

Keep personnel removed from area and upwind of fire. Wear full fire-fighting turn-out gear and respiratory protection.

Unusual Fire and Explosion Hazards:

Prolonged exposure to temperatures above 130F may cause cans to burst.

VI. Accidental Release Measures

Cleanup and Disposal of Spill:

Use personal protective equipment (see Section VIII) when cleaning spill. Contain spilled material in the most convenient and safe manner. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations.

VII. Handling and Storage

Handling:

Use with adequate ventilation. Avoid eye and skin contact. Avoid inhaling vapors.

Storage:

Store in cool, dry, well-ventilated place.

VIII. Exposure Controls / Personal Protection

Exposure Guidelines:

	Exposure Limits		
Component	**ACGIH**	**NIOSH**	**OSHA**
Ethanol			1000 ppm
1, 1 Diflouroethane			1000 ppm

Engineering Controls:

Ventilation should be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the MSDS. Due to the nature of this product, there should be little exposure to it under anticipated use conditions.

Respiratory Protection:

Product: THIS IS A MEDIUM HAIRSPRAY

None required for normal use.

Eye / Face Protection:

Wear safety glasses with side shields or goggles.

Skin Protection:

Wear chemical resistant gloves and protective clothing to minimize skin contact.

IX. Physical and Chemical Properties

Physical Appearance:	Clear Liquid
Odor:	Characteristic
pH:	NA
Specific Gravity:	0.83
Percent Solids by Weight:	ND
Percent Volatile Organic Compound (VOC):	< 55
Water Solubility:	ND
Boiling Point:	ND
Melting Point Range:	ND
Vapor Density:	ND
Vapor Pressure:	ND
Percent Volatile by Volume:	> 98
Evaporation Rate:	ND

X. Stability and Reactivity

Chemical Stability:

Stable under standard use and storage conditions.

Conditions to Avoid:

Temperatures above 130F, ignition sources.

Materials / Chemicals to be Avoided:

None known.

Product: THIS IS A MEDIUM HAIRSPRAY

Hazardous Decomposition Products:

Carbon monoxide, volatile hydrocarbon vapors

Hazardous Polymerization:

Will not occur.

XI. Toxicological Information

Carcinogenicity:

This product is not identified to be a carcinogen by ACGIH, IARC or NTP.

Acute Oral Toxicity:

Acute Dermal Toxicity:

Acute Inhalation Toxicity:

Chronic Toxicity:

Not Determined

XII. Ecological Information

Ecotoxicological Information:

Degradation:	Not Determined
Accumulation:	Not Determined
Fish-Toxicity:	

Product: THIS IS A MEDIUM HAIRSPRAY

Chemical Fate Information:
Not Determined

XIII. Disposal Consideration

Waste Disposal Method:
Discard any product, residue, disposable container or liner in full compliance with federal, state and local regulations. The state and local regulations may differ from federal regulatory requirements and laws may change or be reinterpreted. This information only applies to the material as manufactured. Processing, use, or contamination may make the information inappropriate, inaccurate or incomplete. Responsibility for proper waste disposal is with the

owner of the waste.

Container Handling and Disposal:
Dispose of container and unused contents in accordance with federal, state and local regulations.

XIV. Transportation Information

US Department of Transportation Shipping Name:

US Department of Transportation	**Proper Shipping Name**	Consumer Commodity ORM-D
	Hazard Class	NA
	ID Number	NA
	Packaging Group	NA
	Technical Shipping Name	NA

XV. Regulatory Information

Federal Regulations:

SARA Title III Hazard Class

Fire Hazard:
Reactive Hazard:
Release of Pressure:
Acute Health Hazard:
Chronic Health Hazard:

SARA

Section 302 (RQ)

Section 302 (TPQ)

Product: THIS IS A MEDIUM HAIRSPRAY

Section 313

TSCA

Other Regulations:

State

California Prop. 65: this product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm:

The components with an X are present on the respective state's Right To Know lists:

Component	MA	PA	MI	NJ

XVI. Other Information

Hazardous Materials Information System - HMIS

Health Hazard:	1
Flammability:	2
Reactivity:	1

OSHA - Occupational Safety and Health Administration
TLV - Threshold Limit Value
PEL - Permissible Exposure Limit
TWA - Time Weighted Average
NTP - National Toxicology Program
IARC - International Agency for Research on Cancer

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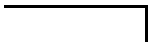
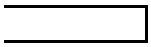
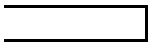
Material Safety Data Sheet

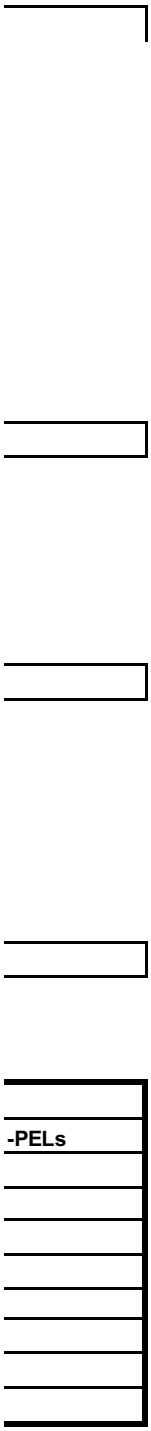
Product: THIS IS A MEDIUM HAIRSPRAY

Revisions: new





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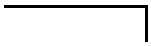

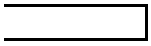

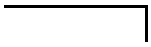

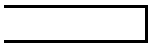

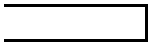

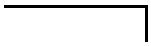

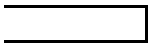

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Material Safety Data Sheet

Product: THIS IS AN INVISIBLE NO GAS SPRAY
IT'S FOR SHAPE FORMING, BRUSHABLE LOOKS

MSDS Date: 7/29/13
Product Name: 55 % VOC Hair Spray
Manufacturer: KIK Indiana, KIK Custom Products.
Code: B-9078 NON Aerosol

I. Product and Company Description

KIK Indiana, KIK Custom Products.
1919 Superior Street
Elkhart, IN 46516

Emergency Phone/Product Information:
Chem Tel (800) 255-3924

Chemical Name or Synonym:
NA

Molecular Formula:
NA

II. Chemical Composition

Chemical	CAS #	% Wt. Composition
Ethanol denatured	64-17-5	45 - 70

III. Hazards Identification

A. Emergency Overview:

Physical Appearance and Odor: Clear liquid, characteristic

B. Potential Health Effects:

Acute Eye:
Direct eye contact may cause irritation.

Product: THIS IS AN INVISIBLE NO GAS SPRAY

Acute Skin:
May cause irritation.

Acute Inhalation:
Inhalation of vapors may produce anaesthetic effects and feeling of euphoria. Prolonged exposure can cause rapid breathing, headache, dizziness, narcosis, unconsciousness and death from asphyxiation, depending on concentration and time of exposure.

Acute Ingestion:
If swallowed, may cause irritation. Ingestion of large quantities can be hazardous.

Chronic Effects:
None known

Medical Conditions Aggravated by Effects:
None

IV. First Aid Measures

First Aid Measures for Accidental:

Eye Exposure:
Immediately flush with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

Skin Exposure:
Wash affected area with soap and water. If irritation develops, seek medical attention.

Inhalation:
Remove to fresh air. Seek medical attention if necessary.

Ingestion:
Contact a poison control center for instructions.

V. Fire Fighting Measures

Fire Hazard Data:

Flash Point: < -20C

Method Used: TCC

Flammability Limits (vol/vol%): **Lower:** N/A **Upper:** N/A

Autoignition Temperature: ND

Product: THIS IS AN INVISIBLE NO GAS SPRAY

Extinguishing Media:

On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide, dry chemical or water spray. Water can be used to cool fire exposed containers.

Special Fire Fighting Procedures:

Keep personnel removed from area and upwind of fire. Wear full fire-fighting turn-out gear and respiratory protection.

Unusual Fire and Explosion Hazards:

Prolonged exposure to temperatures above 130F may cause cans to burst.

VI. Accidental Release Measures

Cleanup and Disposal of Spill:

Use personal protective equipment (see Section VIII) when cleaning spill. Contain spilled material in the most convenient and safe manner. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations.

VII. Handling and Storage

Handling:

Use with adequate ventilation. Avoid eye and skin contact. Avoid inhaling vapors.

Storage:

Store in cool, dry, well-ventilated place.

VIII. Exposure Controls / Personal Protection

Exposure Guidelines:

	Exposure Limits		
Component	**ACGIH**	**NIOSH**	**OSHA-PELs**
Ethanol			1000 ppm

Engineering Controls:

Ventilation should be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the MSDS. Due to the nature of this product, there should be little exposure to it under anticipated use conditions.

Respiratory Protection:

Product: THIS IS AN INVISIBLE NO GAS SPRAY

None required for normal use.

Eye / Face Protection:

Wear safety glasses with side shields or goggles.

Skin Protection:

Wear chemical resistant gloves and protective clothing to minimize skin contact.

IX. Physical and Chemical Properties

Physical Appearance:	Clear Liquid
Odor:	Characteristic
pH:	NA
Specific Gravity:	0.83
Percent Solids by Weight:	ND
Percent Volatile Organic Compound (VOC):	< 55
Water Solubility:	ND
Boiling Point:	ND
Melting Point Range:	ND
Vapor Density:	ND
Vapor Pressure:	ND
Percent Volatile by Volume:	> 98
Evaporation Rate:	ND

X. Stability and Reactivity

Chemical Stability:

Stable under standard use and storage conditions.

Conditions to Avoid:

Temperatures above 130F, ignition sources.

Materials / Chemicals to be Avoided:

None known.

Product: THIS IS AN INVISIBLE NO GAS SPRAY

Hazardous Decomposition Products:

Carbon monoxide, volatile hydrocarbon vapors

Hazardous Polymerization:

Will not occur.

XI. Toxicological Information

Carcinogenicity:

This product is not identified to be a carcinogen by ACGIH, IARC or NTP.

Acute Oral Toxicity:

Acute Dermal Toxicity:

Acute Inhalation Toxicity:

Chronic Toxicity:

Not Determined

XII. Ecological Information

Ecotoxicological Information:

Degradation:	Not Determined
Accumulation:	Not Determined
Fish-Toxicity:	

Product: THIS IS AN INVISIBLE NO GAS SPRAY

Chemical Fate Information:
Not Determined

XIII. Disposal Consideration

Waste Disposal Method:
Discard any product, residue, disposable container or liner in full compliance with federal, state and local regulations. The state and local regulations may differ from federal regulatory requirements and laws may change or be reinterpreted. This information only applies to the material as manufactured. Processing, use, or contamination may make the information inappropriate, inaccurate or incomplete. Responsibility for proper waste disposal is with the

owner of the waste.

Container Handling and Disposal:
Dispose of container and unused contents in accordance with federal, state and local regulations.

XIV. Transportation Information

US Department of Transportation Shipping Name:

US Department of Transportation	**Proper Shipping Name**	Consumer Commodity ORM-D
	Hazard Class	NA
	ID Number	NA
	Packaging Group	NA
	Technical Shipping Name	NA

XV. Regulatory Information

Federal Regulations:

SARA Title III Hazard Class

Fire Hazard:
Reactive Hazard:
Release of Pressure:
Acute Health Hazard:
Chronic Health Hazard:

SARA

Section 302 (RQ)

Section 302 (TPQ)

Product: THIS IS AN INVISIBLE NO GAS SPRAY

Section 313

TSCA

Other Regulations:

State

California Prop. 65: this product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm:

The components with an X are present on the respective state's Right To Know lists:

Component	MA	PA	MI	NJ

XVI. Other Information

Hazardous Materials Information System - HMIS

Health Hazard:	1
Flammability:	2
Reactivity:	1

OSHA - Occupational Safety and Health Administration
TLV - Threshold Limit Value
PEL - Permissible Exposure Limit
TWA - Time Weighted Average
NTP - National Toxicology Program
IARC - International Agency for Research on Cancer

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Material Safety Data Sheet

Product: THIS IS AN INVISIBLE NO GAS SPRAY

Revisions: new

Material Safety Data Sheet

Product: THIS IS A VOLUME BOOSTING MOUSSE
IT'S FOR LONG LASTING, BUOYANT TEXTURES

MSDS Date: 7/29/13
Product Name: 6% VOC Mousse
Manufacturer: KIK Indiana, KIK Custom Products.
Code: B9072C

I. Product and Company Description

KIK Indiana, KIK Custom Products.
1919 Superior Street
Elkhart, IN 46516

Emergency Phone/Product Information:
Chem Tel (800) 255-3924

Chemical Name or Synonym:
NA

Molecular Formula:
NA

II. Chemical Composition

Chemical	CAS #	% Wt. Composition
Propane		1-5%
Isobutane		<6%

III. Hazards Identification

A. Emergency Overview:

Physical Appearance and Odor: Clear liquid, characteristic

B. Potential Health Effects:

Acute Eye:
Direct eye contact may cause irritation.

Acute Skin:

May cause irritation.

Acute Inhalation:

Inhalation of vapors may produce anaesthetic effects and feeling of euphoria. Prolonged exposure can cause rapid breathing, headache, dizziness, narcosis, unconsciousness and death from asphyxiation, depending on concentration and time of exposure.

Acute Ingestion:

If swallowed, may cause irritation. Ingestion of large quantities can be hazardous.

Chronic Effects:

None known

Medical Conditions Aggravated by Effects:

None

IV. First Aid Measures

First Aid Measures for Accidental:

Eye Exposure:

Immediately flush with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

Skin Exposure:

Wash affected area with soap and water. If irritation develops, seek medical attention.

Inhalation:

Remove to fresh air. Seek medical attention if necessary.

Ingestion:

Contact a poison control center for instructions.

V. Fire Fighting Measures

Fire Hazard Data:

Flash Point:	< -20C		
Method Used:	TCC		
Flammability Limits (vol/vol%):	**Lower:** N/A	**Upper:** N/A	
Autoignition Temperature:	ND		
Extinguishing Media:			

On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide, dry chemical or water spray.
Water can be used to cool fire exposed containers.

Special Fire Fighting Procedures:

Keep personnel removed from area and upwind of fire. Wear full fire-fighting turn-out gear and respiratory protection.

Unusual Fire and Explosion Hazards:

Prolonged exposure to temperatures above 130F may cause cans to burst.

VI. Accidental Release Measures

Cleanup and Disposal of Spill:

Use personal protective equipment (see Section VIII) when cleaning spill. Contain spilled material in the most convenient and safe manner. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations.

VII. Handling and Storage

Handling:

Use with adequate ventilation. Avoid eye and skin contact. Avoid inhaling vapors.

Storage:

Store in cool, dry, well-ventilated place.

VIII. Exposure Controls / Personal Protection

Exposure Guidelines:

Component	Exposure Limits		
	ACGIH	NIOSH	OSHA-PELs
Propane			1000 ppm
Isobutane			1000 ppm

Engineering Controls:

Ventilation should be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the MSDS. Due to the nature of this product, there should be little exposure to it under anticipated use conditions.

Respiratory Protection:

None required for normal use.

Eye / Face Protection:

Wear safety glasses with side shields or goggles.

Skin Protection:

Wear chemical resistant gloves and protective clothing to minimize skin contact.

IX. Physical and Chemical Properties

Physical Appearance:	Mousse
Odor:	Characteristic
pH:	NA
Specific Gravity:	0.83
Percent Solids by Weight:	ND
Percent Volatile Organic Compound (VOC):	< 55
Water Solubility:	ND
Boiling Point:	ND
Melting Point Range:	ND
Vapor Density:	ND
Vapor Pressure:	ND
Percent Volatile by Volume:	> 98
Evaporation Rate:	ND

X. Stability and Reactivity

Chemical Stability:

Stable under standard use and storage conditions.

Conditions to Avoid:

Temperatures above 130F, ignition sources.

Materials / Chemicals to be Avoided:

None known.

Hazardous Decomposition Products:

Carbon monoxide, volatile hydrocarbon vapors

Hazardous Polymerization:

Will not occur.

XI. Toxicological Information

Carcinogenicity:

This product is not identified to be a carcinogen by ACGIH, IARC or NTP.

Acute Oral Toxicity:

Acute Dermal Toxicity:

Acute Inhalation Toxicity:

Chronic Toxicity:

Not Determined

XII. Ecological Information

Ecotoxicological Information:

Degradation:	Not Determined
Accumulation:	Not Determined
Fish-Toxicity:	

Chemical Fate Information:

Not Determined

XIII. Disposal Consideration

Waste Disposal Method:

Discard any product, residue, disposable container or liner in full compliance with federal, state and local regulations.

The state and local regulations may differ from federal regulatory requirements and laws may change or be reinterpreted. This information only applies to the material as manufactured. Processing, use, or contamination may make the information inappropriate, inaccurate or incomplete. Responsibility for proper waste disposal is with the owner of the waste.

Container Handling and Disposal:

Dispose of container and unused contents in accordance with federal, state and local regulations.

XIV. Transportation Information

US Department of Transportation Shipping Name:

US Department of Transportation	**Proper Shipping Name**	Consumer Commodity ORM-D
	Hazard Class	NA
	ID Number	NA
	Packaging Group	NA
	Technical Shipping Name	NA

XV. Regulatory Information

Federal Regulations:

SARA Title III Hazard Class

Fire Hazard:

Reactive Hazard:

Release of Pressure:

Acute Health Hazard:

Chronic Health Hazard:

SARA

Section 302 (RQ)

Section 302 (TPQ)

Section 313

TSCA

Other Regulations:

State

California Prop. 65: this product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer, birth defects or other reproductive harm:

The components with an X are present on the respective state's Right To Know lists:

Component	MA	PA	MI	NJ

XVI. Other Information

Hazardous Materials Information System - HMIS

Health Hazard:	1
Flammability:	2
Reactivity:	1

OSHA - Occupational Safety and Health Administration

TLV - Threshold Limit Value

PEL - Permissible Exposure Limit

TWA - Time Weighted Average

NTP - National Toxicology Program

IARC - International Agency for Research on Cancer

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Revisions: new

Formula Code	Formula Description	Language
CT9000(15)	POWDER [CT900015]	Italian

1. Substance or Producer Identification

Product Data

Description : POWDER [CT900015]
Description in language : POWDER [CT900015]

1.3. Details of the supplier of the safety data sheet

ORIGINITALIA SRL
V.lo Don A. Menin, 6
36030 Caldogno ((VI))
Italy
Tel.: +39 0444 986466 Fax.: +39 0444 985255 E-mail: info@originitalia.it

Relevant identified uses of the substance or mixture and uses advised against

IT - Polvere texturizzante capelli
EN - Texturizing powder

2. Hazard Indications

Other hazards

IT - Evitare il contatto con gli occhi, non ingerire.
Non respirare la polvere.
EN - Avoid contact with eyes, do not swallow.
Do not breathe dust.

3. Material Composition/Information

Substances

IT-Informazione non rilevante
EN-Information not relevant

Mixtures

IT-Informazione non rilevante
EN-Information not relevant

4. First Aid Actions

4.1. Description of first aid measures

Eyes Contact

IT - Nessun rischio. Qualora il prodotto possa entrare in contatto con mucose o parti delicate, sciacquare abbondantemente con acqua ed eventualmente, se i sintomi persistono, rivolgersi al personale competente.
EN - No risk . If the product comes in contact with mucous membranes or sensitive areas , rinse with plenty of water and, if symptoms persist , consult a competent person.

Skin Contact

IT - Nessuno
EN - None

Ingestion

IT - In caso di accidentale ingestione rivolgersi al personale specializzato per le misure di primo soccorso da attuare.
EN - In case of accidental ingestion consult qualified service personnel for first aid measures to be implemented.

4. First Aid Actions (continued)

Inhalation
IT - Nessuno
EN - None

4.2. Most important symptoms and effects, both acute and delayed
IT - Non sono noti episodi di danno alla salute attribuibile al prodotto.
EN - No episodes of damage to health ascribable to the product .

5. Fire Fighting Procedures

5.1. Extinguishing media

Suitable extinguishing media
IT - Prodotto non infiammabile.
EN - Product not flammable.

Unsuitable extinguishing media
IT - Nessuno
EN - None

6. Spill/Leak Procedures

Personal precautions, protective equipment and emergency procedures
IT - Non sono necessarie protezioni individuali. Utilizzare i criteri di buona pratica industriale.
EN - Protective equipment is not necessary. Use the criteria of good industrial practice .

Environmental precautions
IT - Tenere il prodotto lontano da scarichi, dalle acque di superficie e sotterranee e dal suolo. Se il prodotto viene a contatto con il suolo che lo assorbe rimuovere l'eccedenza secondo le norme vigenti di smaltimento.
EN - Keep the product away from drains, surface water, ground-water and soil . If the product comes in contact with the ground which absorbs, remove the excess according to applicable regulations for disposal .

Methods and material for containment and cleaning up
IT - Se il prodotto viene a contatto con il suolo che lo assorbe rimuovere l'eccedenza.
Se il prodotto viene a contatto con una superficie impermeabile, assorbire la frazione residua su vermiculite, sabbia asciutta, terra, ecc. e porre il tutto in contenitori adatti. In ogni caso segnalare la presenza di materiale nel suolo per prestare una maggiore attenzione. Procedere poi con la rimozione del materiale utilizzando specifici sistemi detergenti.
Nel caso in cui la fuoriuscita del prodotto sia dovuta al contenitore danneggiato, trasferire l'eventuale rimanenza in un altro recipiente idoneo e sistemare il contenitore danneggiato in un posto adatto, secondo le norme vigenti di smaltimento.
EN - If the product comes in contact with the ground, and is partially absorbed, remove the excess .
If the product comes in contact with an impermeable surface , absorb the residual fraction of vermiculite , dry sand , earth, etc. . and place the whole into suitable containers. In each case indicate the presence of material in the soil to pay greater attention . Then proceed with the removal of material using specific detergents.
In the case where the leakage of the product is due to a damaged container , transfer any remainder in another suitable container and place the damaged container in a suitable place , according to current regulations for disposal .

Reference to other sections
IT - Eventuali informazioni riguardanti le protezioni individuali e lo smaltimento sono riportate alle sezioni 8 e 13.
EN - Any information on personal protection and disposal is given in sections 8 and 13.

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7. Handling and Storing Standard

Precautions for safe handling
IT - Utilizzare i criteri di buona pratica industriale.
EN - Use the criteria of good industrial practice.

Conditions for safe storage, including any incompatibilities
IT - Si raccomanda lo stoccaggio in contenitori ben chiusi e lontano da fonti di calore.
EN - It is recommended that the product is stored in tightly closed containers away from heat sources.

8. Exposure Control Procedures/Protective Measures

8.1. Control parameters
IT - Nessuna precauzione particolare, essendo il prodotto un preparato di uso cosmetico destinato ad una applicazione cutanea su pelle integra e priva di lesioni.
EN - No special precautions required, since the product is a cosmetic intended for topical application on intact skin and without wounds.

8.2. Exposure controls

Eye/face protection
IT - Non sono necessarie protezioni individuali.
EN - Protective equipment is not necessary.

Skin protection
IT - Non sono necessarie protezioni individuali.
EN - Protective equipment is not necessary.

Respiratory protection
IT - Non sono necessarie protezioni individuali.
EN - Protective equipment is not necessary.

Other Information
IT - Tenere lontano da generi alimentari e di consumo ed evitare che il prodotto venga a contatto con agenti di contaminazione microbica di vario genere.
EN - Keep away from food and consumables and ensure that the product does not come in contact with microbial contamination agents of any kind.

9. Chemical & Physical Characteristics

9.1. Information on basic physical and chemical properties

Analysis	Value
Density apparent	0.120-0.140
Total microbial count bacteria	<10 UFC/g
Total microbial count moulds and yeasts	<10 UFC/g
Odor	INODORE/ODORLESS
State	POLVERE/POWDER
Color	BIANCO/WHITE

10. Stability and Reactivity Data

Chemical stability
IT - Il prodotto risulta stabile. Il tempo di conservazione è superiore a 36 mesi a contenitore chiuso ed in condizioni normali di

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10. Stability and Reactivity Data (continued)

stoccaggio.
EN - The product is stable. The storage time or shelf life is more than 36 months in closed container under normal conditions of storage.

Possibility of hazardous reactions
IT - Nessuna
EN - None

Conditions to avoid
IT - Nessuna in particolare
EN - None in particular

Incompatible materials
IT - Nessuno
EN - None

Hazardous decomposition products
IT - Nessuno
EN - None

11. Toxicological Information

Corrosivity - Irritant Power - Skin
IT - Il prodotto non è irritante.

EN - The product does not irritate.

Other Information
IT - Non sono noti episodi di danno alla salute dovuti all'esposizione al prodotto.

EN - No episodes of damage to health caused from exposure to the product.

12. Information about Ecological Effects

Toxicity
IT - Non determinata.
EN - Not determined.

Persistence and degradability
IT - Utilizzare secondo le buone pratiche lavorative evitando di disperdere il prodotto nell'ambiente, nel suolo, nel sottosuolo, nelle acque e nei sistemi di scarico.
EN - Use according to good working practices, avoiding disposal in the environment, soil, subsoil, water and drainage systems.

Bioaccumulative potential
IT - Informazioni non disponibili.
EN - Information not available.

Mobility in soil
IT - Informazioni non disponibili.
EN - Information not available.

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12. Information about Ecological Effects (continued)

Results of PBT and vPvB assessment
IT - Informazioni non disponibili.
EN - Information not available.

Other adverse effects
IT - Informazioni non disponibili.
EN - Information not available.

13. Disposal Advice

Waste treatment methods
IT - Il prodotto è da considerarsi come rifiuto speciale. Lo smaltimento del prodotto deve avvenire in conformità alle disposizioni vigenti al momento dello smaltimento.
EN - The product is to be considered as special waste . The disposal of this product should be in accordance with the provisions in force at the time of disposal.

14. Transportation Data

Transport hazard class(es)
IT - Il trasporto del prodotto deve essere fatto nei contenitori originali e, comunque, in contenitori che siano chiusi in modo da impedire fuoriuscite. I contenitori originali risultano essere compatibili con il preparato e costituiti da materiali inattaccabili dal contenuto, non suscettibili a formare combinazioni nocive o pericolose.
In linea generale attenersi per il trasporto al D.M. 22 febbraio 1990, raccomandazioni ONU, IMO (via mare), ADR (via strada), RID (via ferrovia), ICAO (via aerea).
EN - During transportation the product should be in original containers and tightly sealed to prevent spillage. These original containers must be compatible with the product and not made up of materials that are likely to form harmful or dangerous compounds.
Please follow the D.M. transport guidelines - February 22, 1990, ONU recommendations, IMO (sea), ADR (off road), RID (via rail), ICAO (air).

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture
IT - I prodotti cosmetici finiti sono fabbricati e commercializzati in conformità alla Legge 1223/09 e successive modifiche.
I prodotti cosmetici sono specificatamente esclusi dal campo di applicazione della Legislazione nazionale e comunitaria sui preparati pericolosi.
EN - The finished cosmetic products are manufactured and marketed in accordance with the Law 1223/09.
Cosmetic products are specifically excluded from the scope of the national and Community legislation on dangerous preparations.

Chemical safety assessment
IT - Non è stata elaborata una valutazione di sicurezza chimica del prodotto.
EN - A chemical safety assessment has not been prepared on the product.

16. Other Information

IT - Le informazioni qui contenute sono basate sulle conoscenze in nostro possesso e ritenute corrette, alla data di emissione della scheda, relativamente alle prescrizioni per la sicurezza e per il corretto uso del prodotto.
L' Azienda non assume responsabilità per eventuali comportamenti ed azioni degli acquirenti, per impieghi del prodotto non ragionevolmente prevedibili, non corretti od impropri o in caso di rivendite non autorizzate da parte di dettaglianti a causa di carenze di informazioni destinate ai consumatori finali.
EN - The information contained herein are based on our knowledge and considered correct at the date of issuance of the card, with respect to the requirements for safety and for the correct use of the product. The company is not liable for any conduct and actions

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16. Other Information (continued)

of buyers, for use of the product not reasonably foreseeable or improper or incorrect in the case of unauthorized resales by retailers due to lack of information for consumers.

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KIK CUSTOM PRODUCTS

SAFETY DATA SHEET

KIK – B-9075E

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.0 SDS Revision Date: 9/15/2015

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	**Shimmering Mist**
1.2	Chemical Name:	Aerosol Shine spray
1.3	Synonyms:	Davines – Shimmering Mist 55%VOC – B-9075E. Code 87064
1.4	Trade Names:	Shimmering Mist
1.5	Product Uses/ Restrictions	Professional and Cosmetic Use
1.6	Distributor's Name:	KIK Custom Products
1.7	Distributor's Address:	2030 Old Candler Road, Gainesville, GA 30507 USA
1.8	Emergency Phone:	**CHEMTEL: +1 (813) 248-0585 / +1 (800) 255-3924**
1.9	Business Phone / Fax:	+1 (770) 534-0300 / +1 (770) 534-8954

2. HAZARDS IDENTIFICATION

2.1 Hazard Identification:

This product is classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia)

WARNING! FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED. HIGHLY FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION.

Classification: Level 1 Aerosol; Category 2 Flammable Aerosol

Hazard Statements (H): H-223– Flammable Aerosol. H229–Pressurized container: may burst if heated. H320 – Causes eye irritation.

Precautionary Statement (P):

P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking.
P211 – Do not spray on an open flame or other ignition source.
P251 – Do not pierce or burn, even after use.
P261 – avoid breathing vapors/spray.
P271 – Use only in well-ventilated area.
P304+P340 – IF INHALED; Remove person to fresh air and keep comfortable for breathing.
P305+P351+338 – IF INEYES; Rinse cautiously with water for several minutes. Remove contact lenses, if present, continue rinsing.
P337+P313 – If eye irritation persists: Get medical advice/attention.
P410+P412 – Protect from sunlight. Do no expose to temperature exceeding 48°C (120 °F).
P501 – Dispose of contents/container to licensed and permitted disposal or recycling facility.

3. COMPOSITION & INGREDIENT INFORMATION

Substance / Chemical Name(s)	CAS No.	EINECS No.	%	Other
DIFLUOROETHANE (R-152a)	75-37-6	200-866-1	40– 60	Flam. Gas 1; H220
Isobutane	75-28-5	200-857-2	5 – 20	Flam. Gas 1; H220
Ethanol (SD Alcohol 40B)	64-17-5	200-578-6	20 - 35	Flam. Liq. 2; H225

4. FIRST AID MEASURES

4.1	First Aid:	Ingestion:	If ingested, do not induce vomiting! If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give water or milk to an unconscious person. Contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed.
		Skin:	If irritation occurs & product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with plenty of soap and water. Remove contaminated clothing and wash thoroughly before ruse. If irritation, redness or swelling persists, consult a physician immediately.
		Eyes:	If product get in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. Raise and lower eyelid(s) while flushing to ensure thorough irrigation. If problems persist seek immediate medical attention.
		Inhalation:	Remove victim to fresh air and keep comfortable for breathing.
4.2	Effects of Exposure:	Ingestion:	If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression.
		Skin:	May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals upon prolonged or repeated exposure.
		Eyes:	Moderately irritating to the eyes.

		Inhalation:	Vapors of this product may be moderately irritating to the nose, throat and other tissues of the respiratory system. Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing. Inhalation of concentrated vapors can cause nervous system depression (e.g., drowsiness, dizziness, headaches, nausea).
4.3	Symptoms of Overexposure	Ingestion:	May cause nausea, vomiting and/or diarrhea and central nervous system depression.
		Skin:	Prolonged contact with skin may result in bleaching and irritation of skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas.
		Eyes:	Overexposure in eyes, may cause redness, itching and watering (risk of serious damage to eyes) Contact may cause mild eye irritation including stinging, watering and redness.
		Inhalation:	Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing.
4.4	Acute Health Effects:	Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.	
4.5	Chronic Health Effects:	No harmful or chronic health effects are expected to occur from a single accidental ingestion. These ingredients may be irritating to skin and mucous membrane of the eye and respiratory system. Overexposure may trigger asthma-like symptoms in some sensitive individuals. May also induce skin sensitization and respiratory hypersensitivity. Possible allergic dermatitis.	
4.6	Target Organs:	Eyes, skin, respiratory system.	
4.7	Medical Conditions Aggravated by Exposure	Acute health hazards may be delayed. Most common symptoms include irritating properties to eyes, respiratory system and skin. Existing dermatological conditions (such as eczema) and respiratory conditions (such as bronchial asthma and/or bronchitis) may be exacerbated.	

HEALTH		**1**
FLAMMABILITY		**3**
PHYSICAL HAZARDS		**0**
PROTECTIVE EQUIPMENT		**B**
EYES	**SK IN**	

5. FIREFIGHTING MEASURES

5.1	Fire and Explosion Hazards:	Level 1 Aerosol (NFPA 30B). Aerosols may burst at temperatures above 120° F (48°C). Cool uninvolved containers to prevent possible bursting. Aerosols may be projectile hazards when bursting. If aerosols are bursting, stay clear until bursting is complete. Containers may rupture and release flammable liquids and/or exposed gases if exposed to the heat of fire. Keep containers cool by spraying them with water until the fire has been extinguished.
5.2	Extinguishing Methods:	Water Fog, Foam, CO_2, Dry Chemical
5.3	Firefighting Procedures:	As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressure-demand_ and full protective gear. Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personnel. Fight fire upwind. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies.

6. ACCIDENTIAL RELEASE MEASURES

6.1	Spills:	Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment (PPE). Small spills Wear appropriate personal protective equipment including gloves and protective eyewear. Use a non-combustible material such as vermiculite or sand to soak up the product and place into a container for later disposal. Do not use water or a material such as "speedy dry" to soak up material. Sweep up material using non-sparking materials (e.g., plastic brooms, shovels, dustpans) and place into a plastic container or plastic liner within another container. Large spills: Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant.

7. HANDLING AND STORAGE INFORMATION

7.1	Work & Hygiene Practices	Do not eat, drink, or smoke while handling this product. Contents under pressure. Handle as to avoid puncturing container(s). When used as intended, no additional protective equipment is necessary. Use chemical goggles if eye contact is possible. Wash unintentional residues with soap and warm water.

7.2	Storage and Handling:	Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans) away from heat and direct sunlight. Avoid temperatures above 120 °F (48°C). Keep away from incompatible substances. Protect containers from physical damage. To avoid unintentional spraying, keep cap in place when not in use. Storage level 1.
7.3	Special Precautions:	Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 Exposure Limits: Ppm (mg/m^3)

Chemical Name(s)	ACGIH		NOHSC			OSHA			OTHER
	TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH	
Ethanol (SD Alcohol 40B)	1000	3000	1000	1800	NF	1000	1900	3300	
DIFLUOROETHANE (R-152a)	1000	NA	1000	NA	NA	NE	NA	NA	
Isobutane	600	750	NF	NF	NA	NA	NA	NA	

8.2	Ventilation & Engineering Controls	General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use. Use local or general exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the handling of this product.	
8.3	Respiratory Protection:	No special respiratory protection is required under typical circumstances of use or handling. In instances where dusts of this product are generated, and respiratory protection is needed, use only protection authorized by 29 CFR §1910.134, applicable U.S. State regulations, or the Canadian CAS Standard Z94.4-93 and applicable standards of Canadian Provinces, EC member States, or Australia.	
8.4	Eye Protection:	None required under normal conditions of use. Avoid eye contact. Safety glasses should be used when handling or using large quantities of this product (e.g., ≥ 1 gallon (3.8 L)).	
8.5	Hand Protection:	None required under normal conditions of use. However, may cause skin irritation is some sensitive individuals. When handling large quantities (e.g., ≥ 1 gallon (3.8 L)), wear rubber, nitrile or impervious plastic gloves.	
8.6	Body Protection:	No apron required when handling small quantities. When handling large quantities (e.g., ≥ 5 lbs.), eye wash station and deluge showers should be available. Upon completion of work activities involving large quantities of this product, wash any exposed areas thoroughly with soap and water.	

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Aerosol, misty shine spray
9.2	Odor:	Fresh Sweet odor
9.3	Odor Threshold	NA
9.4	pH:	NA
9.5	Melting/Freezing Point	NA
9.6	Initial Boiling Point/ Boiling Range:	NA
9.7	Flashpoint:	-30 °F (-34 °C) TCC for propellant only; 35.6 ^{0}F (2 ^{0}C) EPA method 1010 Concentrate only
9.8	Upper/Lower Flammability limits	NA
9.9	Vapor Pressure:	@ 20 °C (68° F) – Can pressure not to exceed 180 psig @ 55 °C (131 °F) 12.4 bar
9.10	Vapor Density	>1
9.11	Relative Density:	0.85 – 0.95
9.12	Solubility:	Soluble
9.13	Partition Coefficient (log P_{ow}):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature.	NA
9.16	Viscosity:	Aerosol at ambient temperature
9.17	Other Information:	Evaporation Rate >1

10. STABILITY & REACTIVITY

10.1	Stability:	Stable at normal temperatures.
10.2	Hazardous Decomposition Products:	Oxides of carbon (CO, CO_2) and sulfur (SO_2)
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid	Excessive heat, direct sunlight, flames, heat sources and incompatible substances.
10.5	Incompatible Substances	Mixture with strong acids, alkalis or oxidizers.

11. TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Inhalation:	YES	Absorption:	YES	Ingestion:	YES
11.2	Toxicity Data:	This product was not tested on animals.					
11.3	Acute Toxicity:	See Section 4.4					
11.4	Chronic Toxicity:	See Section 4.5					
11.5	Suspected Carcinogen:	NA					
11.6	Reproductive Toxicity:	This product is not reported to cause reproductive toxicity in humans.					
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.					
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.					
	Teratogenicity:	This product is not report to cause teratogenic effects in humans.					
	Reproductive Toxicity:	This product is not report to cause reproductive effects in humans.					
11.7	Irritancy of Product:	See Section 4.3					
11.8	Biological Exposure Indices:	NA					
11.9	Physician Recommendations:	Treat symptomatically.					

12. ECOLOGICAL INFORMATION

12.1	Environmental Stability:	There is no specific data available for this product.
12.2	Effects on Plants & Animals	There is no specific data available for this product.
12.3	Effects on Aquatic Life:	The product itself has not been tested as a whole. There is no specific data available for this product.

13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal:	Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Any disposal practice must be in compliance with local, state and federal laws and regulations. Contact the appropriate agency for specific information. A licensed facility or waste hauler must provide treatment, transport, storage and disposal of hazardous waste.
13.2	Special Considerations:	U.S. EPA Hazardous Waste – Characteristic – Ignitable (D001)

14. TRANSPORTATION INFORMATION

14.1	49 CFR (GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or CONSUMER COMMODITY, ORM-D (IP VOL ≤ 1.0 L) – until 12/31/2020
14.2	IATA (AIR)	UN1950, AEROSOLS, FLAMMABLE, 2.1 (LTD QTY, IP VOL ≤ 0.5 L); or ID8000, CONSUMER COMMODITY, ORM-D (IP VOL ≤ 0.5 l=L)
14.3	IMDG (OCN):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
14.4	TDGR (Canadian GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or MARK PACKAGE "LIMITED QUANTITY", "LTD QTY", OR "QUANT LTÉE" OR "QUANTITÉ LIMITÉE"
14.5	ADR/RID (EU):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
14.6	SCT (MEXICO):	UN1950, AEROSOLES, 2.1 (CANTIDAD LIMITADA, IP VOL ≤ 1.0 L)
14.7	ADGR (AUS):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)

15. REGULATORY INFORMATION

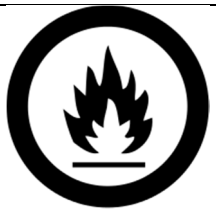
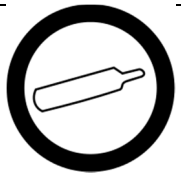
15.1	SARA Reporting Requirements:	This product does not contain any substance subject to SATA Title III, section 313 reporting requirements.
15.2	SARA Threshold Planning Quantity:	There are no specific Threshold Planning Quantities for the components of this product.
15.3	TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory.
15.4	CERCLA Reportable Quantity (RQ):	Ethanol: 2270 kg; 5000 lbs
15.5	Other Federal Requirements:	This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR Subchapter G. (Cosmetics)
15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR. The components of the product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substance List. WHMIS Class B5 (Flammable Aerosol)
15.7	State Regulatory Information:	Ethanol: is found on the following state criteria lists FL, MA, MN, NJ, PA, and WA Isobutane can be found on the following state criteria lists: MA, NJ, and PA. Difluoroethane can be found on the following state criteria lists: MA and NJ No other ingredients of this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI).
15.8	Other Requirements:	The primary components of this product are listed in Annex I of EU Directive 67/548/EEC: Isobutane: Flammable (F+). Risk Phrases (R): 12 – Highly Flammable. Safety Phrases (S): 2-9-16 – Keep out of reach of children. Keep container in a well- ventilated place. Keep away from sources of ignition – No smoking. Ethanol : Flammable (F). Risk Phrases (R): 11 – Flammable. Safety Phrase (S): 2-7-16 – Keep out of reach of children. Keep container tightly closed. Keep away from sources of ignition – No smoking

16. OTHER INFORMATION

16.1	Other Information:	**WARNING! FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED, HIGHLY FLAMMABLE LIQUID AND VAPORS. CAUSES EYE IRRITATION.** Keep away from heat, hot surfaces, sparks open flames and other ignition sources. No Smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid breathing vapor/spray. Wash thoroughly with soap and water after handling. Use only in a well ventilated area. Wear eye protection. Protect from sunlight. Do not expose to temperature exceeding 48°C (120°F). IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. **KEEP PRODUCT LOCKED-UP AND OUT OF REACH OF CHILDREN.**
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.
16.3	Disclaimer:	This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the base of KIK Custom Product's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or complete=ness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.
16.4	Prepared By:	**KIK Custom Products** 2030 Old Candler Road Gainesville, GA 30507 USA http://www.kikcorp.com

KIK CUSTOM PRODUCTS

Flammable	Explosive	Oxidizer
Pressurized	Corrosive	Toxic
Harmful/Irritating	Health Hazard	Environment
Face Shield and Protective Eyewear	Apron	Dust Mask
Scuba	Protective Clothing	Full Suit
Boots	Safety Glasses	Gloves

Full Face Respirator	Reactive	Irritant / Harmful
Biohazard	Oxidizing	 Flammable
Infectious	Corrosive	 Compressed
Toxic	Irritation	

KIK CUSTOM PRODUCTS

SAFETY DATA SHEET

B-9082E

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1. SDS Revision Date: 04/11/2017

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	Davines – Ultra Strong Hold Hair Spray
1.2	Chemical Name:	Aerosol Hair Spray
1.3	Synonyms:	Hair Spray 55%VOC – B9082E
1.4	Trade Names:	Davines Ultra Strong Hair Spray
1.5	Product Uses & Restrictions	Professional and Cosmetic Use
1.6	Distributor's Name:	KIK Custom Products
1.7	Distributor's Address:	2030 Old Candler Road, Gainesville, GA 30507 USA
1.8	Emergency Phone:	**CHEMTREC: +1 (800) 424-9300 / + 1 703-527-3887**
1.9	Business Phone / Fax:	+1 (770) 534-0300 / +1 (770) 534-8954

2. HAZARDS IDENTIFICATION

2.1	Hazard Identification:	This product is classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of NOHSC: 1008 (2004) and ADG Code (Australia) **WARNING! FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED. FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION.** Classification: Aerosol level 1; Category 2 Flammable aerosol; Eye Irrit. 2B Hazard Statements (H): H-223 – Flammable Aerosol. H229 – Pressurized container: may burst if heated. H320 – Causes eye irritation. H280- Contains gas under pressure; may explode if heated. Precautionary Statement (P): P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking. P211 – Do not spray on an open flame or other ignition source. P251 – Do not pierce or burn, even after use. IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P337+P313 – If eye irritation persists: Get medical advice/attention. P410+P412 – Protect from sunlight. Do no expose to temperature exceeding 50°C (122 °F). P501 – Dispose of contents/container to licensed and permitted disposal or recycling facility.

3. COMPOSITION & INGREDIENT INFORMATION

Substance / Chemical Name(s)	CAS No.	EINECS No.	%	Other
ETHANOL (SD ALCOHOL 40B)	64-17-5	200-578-6	30-60	Flam. Liq. 2; H225
DIFLUOROETHANE (R-152a)	75-37-6	200-866-1	30-45	Flam. Gas 1; H220

4. FIRST AID MEASURES

4.1	First Aid:	Ingestion:	If ingested, do not induce vomiting! If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give water or milk to an unconscious person. Contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed.
		Skin:	If irritation occurs & product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with plenty of soap and water. Remove contaminated clothing and wash thoroughly before ruse. If irritation, redness or swelling persists, consult a physician immediately.
		Eyes:	If product get in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. Raise and lower eyelid(s) while flushing to ensure thorough irrigation. If problems persist seek immediate medical attention.
		Inhalation:	Remove victim to fresh air and keep comfortable for breathing.
4.2	Effects of Exposure:	Ingestion:	If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression.
		Skin:	May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals upon prolonged or repeated exposure.
		Eyes:	Moderately irritating to the eyes.
		Inhalation:	Vapors of this product may be moderately irritating to the nose, throat and other tissues of the respiratory system. Symptoms of overexposure can include coughing, wheezing, nasal congestion,

			and difficulty breathing. Inhalation of concentrated vapors can cause nervous system depression (e.g., drowsiness, dizziness, headaches, nausea).
4.3	Symptoms of Overexposure	Ingestion:	May cause nausea, vomiting and/or diarrhea and central nervous system depression.
		Skin:	Prolonged contact with skin may result in bleaching and irritation of skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas.
		Eyes:	Overexposure in eyes, may cause redness, itching and watering (risk of serious damage to eyes) Contact may cause mild eye irritation including stinging, watering and redness.
		Inhalation:	Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing.
4.4	Acute Health Effects:	Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.	
4.5	Chronic Health Effects:	No harmful or chronic health effects are expected to occur from a single accidental ingestion. These ingredients may be irritating to skin and mucous membrane of the eye and respiratory system. Overexposure may trigger asthma-like symptoms in some sensitive individuals. May also induce skin sensitization and respiratory hypersensitivity. Possible allergic dermatitis.	
4.6	Target Organs:	Eyes, skin, respiratory system.	
4.7	Medical Conditions Aggravated by Exposure	Acute health hazards may be delayed. Most common symptoms include irritating properties to eyes, respiratory system and skin. Existing dermatological conditions (such as eczema) and respiratory conditions (such as bronchial asthma and/or bronchitis) may be exacerbated.	

HEALTH		**1**
FLAMMABILITY		**3**
PHYSICAL HAZARDS		**0**
PROTECTIVE EQUIPMENT		**B**
EYES	**SK IN**	

5. FIREFIGHTING MEASURES

5.1	Fire and Explosion Hazards:	Level 1 Aerosol (NFPA 30B). Aerosols may burst at temperatures above 120° F. Cool uninvolved containers to prevent possible bursting. Aerosols may be projectile hazards when bursting. If aerosols are bursting, stay clear until bursting is complete. Containers may rupture and release flammable liquids and/or exposed gases if exposed to the heat of fire. Keep containers cool by spraying them with water until the fire has been extinguished.
5.2	Extinguishing Methods:	Water Fog, Foam, CO_2, Dry Chemical
5.3	Firefighting Procedures:	As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressure-demand_ and full protective gear. Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personnel. Fight fire upwind. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies.

6. ACCIDENTIAL RELEASE MEASURES

6.1	Spills:	Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment (PPE). Small spills Wear appropriate personal protective equipment including gloves and protective eyewear. Use a non-combustible material such as vermiculite or sand to soak up the product and place into a container for later disposal. Do not use water or a material such as "speedy dry" to soak up material. Sweep up material using non-sparking materials (e.g., plastic brooms, shovels, dustpans) and place into a plastic container or plastic liner within another container. Large spills: Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant.

7. HANDLING AND STORAGE INFORMATION

7.1	Work & Hygiene Practices	Do not eat, drink, or smoke while handling this product. Contents under pressure. Handle as to avoid puncturing container(s). When used as intended, no additional protective equipment is necessary. Use chemical goggles if eye contact is possible. Wash unintentional residues with soap and warm water.

7.2	Storage and Handling:	Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans) away from heat and direct sunlight. Avoid temperatures above 120 °F. Keep away from incompatible substances. Protect containers from physical damage. To avoid unintentional spraying, keep cap in place when not in use. Storage level 1.
7.3	Special Precautions:	Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 Exposure Limits: Ppm (mg/m^3)

Chemical Name(s)	ACGIH TLV	ACGIH STEL	NOHSC ES-TWA	NOHSC ES-STEL	NOHSC ES-PEAK	OSHA PEL	OSHA STEL	OTHER
ETHANOL(SD ALCOHOL 40B)	1000	3000	1000	1800	NF	1000	1900	
DIFLOROETHANE (R-152a)	1000	NA	1000	NA	NA	NE	NA	

8.2	Ventilation & Engineering Controls	General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use. Use local or general exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the handling of this product.	
8.3	Respiratory Protection:	No special respiratory protection is required under typical circumstances of use or handling. In instances where dusts of this product are generated, and respiratory protection is needed, use only protection authorized by 29 CFR §1910.134, applicable U.S. State regulations, or the Canadian CAS Standard Z94.4-93 and applicable standards of Canadian Provinces, EC member States, or Australia.	
8.4	Eye Protection:	None required under normal conditions of use. Avoid eye contact. Safety glasses should be used when handling or using large quantities of this product (e.g., ≥ 1 gallon (3.8 L)).	
8.5	Hand Protection:	None required under normal conditions of use. However, may cause skin irritation is some sensitive individuals. When handling large quantities (e.g., ≥ 1 gallon (3.8 L)), wear rubber, nitrile or impervious plastic gloves.	
8.6	Body Protection:	No apron required when handling small quantities. When handling large quantities (e.g., ≥ 5 lbs.), eye wash station and deluge showers should be available. Upon completion of work activities involving large quantities of this product, wash any exposed areas thoroughly with soap and water.	

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Aerosol, clear misty spray of liquid
9.2	Odor:	Fresh Floral
9.3	Odor Threshold	NA
9.4	pH:	NA
9.5	Melting/Freezing Point	NA
9.6	Initial Boiling Point/ Boiling Range:	NA
9.7	Flashpoint:	-30 °F (-34 °C) TCC for propellant only: 35.6 °F (2 °C) EPA method 1010 (concentrate only)
9.8	Upper/Lower Flammability limits	NA
9.9	Vapor Pressure:	@ 20 °C (68° F) – Can pressure not to exceed 180 psig @ 55 °C (131 °F) 12.4 bar
9.10	Vapor Density	>1
9.11	Relative Density:	0.81-0.85
9.12	Solubility:	Soluble
9.13	Partition Coefficient (log P_{ow}):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature.	NA

9.16	Viscosity:	Aerosol at ambient temperature
9.17	Other Information:	Evaporation Rate >1: Percent Volatile 55%

10. STABILITY & REACTIVITY

10.1	Stability:	Stable at normal temperatures.
10.2	Hazardous Decomposition Products:	Oxides of carbon (CO, CO_2) and sulfur (SO_2)
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid	Excessive heat, direct sunlight, flames, heat sources and incompatible substances.
10.5	Incompatible Substances	Mixture with strong acids, alkalis or oxidizers.

11. TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Inhalation:	YES	Absorption:	YES	Ingestion:	YES
11.2	Toxicity Data:	This product was not tested on animals. Toxicology data, found in scientific literature, is available and not presented in this document. Hydrofluorocarbon-152a: LC_{50} (inh, 2 h, mouse): 977 g/m^3					
11.3	Acute Toxicity:	See Section 4.4					
11.4	Chronic Toxicity:	See Section 4.5					
11.5	Suspected Carcinogen:	No.					
11.6	Reproductive Toxicity:	This product is not reported to cause reproductive toxicity in humans.					
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.					
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.					
	Teratogenicity:	This product is not report to cause teratogenic effects in humans.					
	Reproductive Toxicity:	This product is not report to cause reproductive effects in humans.					
11.7	Irritancy of Product:	See Section 4.3					
11.8	Biological Exposure Indices:	NA					
11.9	Physician Recommendations:	Treat symptomatically.					

12. ECOLOGICAL INFORMATION

12.1	Environmental Stability:	There is no specific data available for this product.
12.2	Effects on Plants & Animals	There is no specific data available for this product.
12.3	Effects on Aquatic Life:	The product itself has not been tested as a whole. There is no specific data available for this product.

13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal:	Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Any disposal practice must be in compliance with local, state and federal laws and regulations. Contact the appropriate agency for specific information. A licensed facility or waste hauler must provide treatment, transport, storage and disposal of hazardous waste.
13.2	Special Considerations:	U.S. EPA Hazardous Waste

14. TRANSPORTATION INFORMATION

14.1	49 CFR (GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or CONSUMER COMMODITY, ORM-D (IP VOL ≤ 1.0 L) – until 12/31/2020
14.2	IATA (AIR)	UN1950, AEROSOLS, FLAMMABLE, 2.1 (LTD QTY, IP VOL ≤ 0.5 L); or ID8000, CONSUMER COMMODITY, ORM-D (IP VOL ≤ 0.5 l=L)
14.3	IMDG (OCN):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
14.4	TDGR (Canadian GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or MARK PACKAGE "LIMITED QUANTITY", "LTD QTY", OR "QUANT LTÉE" OR "QUANTITÉ LIMITÉE"
14.5	ADR/RID (EU):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
14.6	SCT (MEXICO):	UN1950, AEROSOLES, 2.1 (CANTIDAD LIMITADA, IP VOL ≤ 1.0 L)
14.7	ADGR (AUS):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)

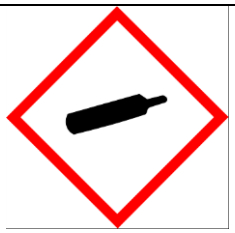
15. REGULATORY INFORMATION

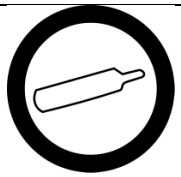
15.1	SARA Reporting Requirements:	This product does not contain any substance subject to SATA Title III, section 313 reporting requirements.
15.2	SARA Threshold Planning Quantity:	There are no specific Threshold Planning Quantities for the components of this product.
15.3	TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory.
15.4	CERCLA Reportable Quantity (RQ):	Ethanol: 2270 kg; 5000 lbs.
15.5	Other Federal Requirements:	This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR Subchapter G. (Cosmetics)
15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR. The components of the product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substance List. WHMIS Class B5 (Flammable Aerosol)
15.7	State Regulatory Information:	Ethanol is found on the following state criteria lists: Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Pennsylvania Right-to-Know list (PA), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ). Difluoroethane can be found on the following state criteria lists: MA and NJ. No other ingredients of this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI).
15.8	Other Requirements:	The primary components of this product are listed in Annex I of EU Directive 67/548/EEC: Ethanol: Flammable (F). Risk Phrases ®: 11 – Flammable. Safety Phrases (S): 2-7-16 – Keep out of reach of children. Keep container tightly closed. Keep away from sources of ignition – No smoking.

16. OTHER INFORMATION

16.1	Other Information:	**WARNING! FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED, HIGHLY FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION.** Keep away from heat, hot surfaces, sparks open flames and other ignition sources. No Smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid breathing vapor/spray. Wash thoroughly with soap and water after handling. Use only in a well ventilated area. Wear eye protection. Protect from sunlight. Do not expose to temperature exceeding 50 °C (122 °F). IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. **KEEP OUT OF REACH OF CHILDREN.**
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.
16.3	Disclaimer:	This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the base of KIK Custom Product's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.
16.4	Prepared By:	**KIK Custom Products** 2030 Old Candler Road Gainesville, GA 30507 USA Tel: +1 (770) 534-0300 Fax: +1 (770) 534-8954 http://www.kikcorp.com

KIK CUSTOM PRODUCTS

Flammable	Explosive	Oxidizer
 Pressurized	Corrosive	Toxic
Harmful/Irritating	Health Hazard	Environment
Face Shield and Protective Eyewear	Apron	Dust Mask
Scuba	Protective Clothing	Full Suit
Boots	Safety Glasses	Gloves

Full Face Respirator	Reactive	Irritant / Harmful
Biohazard	Oxidizing	Flammable
Infectious	Corrosive	 Compressed
Toxic	Irritation	

KIK CUSTOM PRODUCTS

SAFETY DATA SHEET

B-9703C

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1. SDS Revision Date: 10/24/2016

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	Davines Crystal No. 7 Extra Strong Hair Spray
1.2	Chemical Name:	Aerosol Product
1.3	Synonyms:	Cod. 87083 – Hair Spray 55%VOC – B9703C
1.4	Trade Names:	Davines Crystal No. 7
1.5	Product Uses & Restrictions	Professional and Cosmetic Use
1.6	Distributor's Name:	KIK Custom Products
1.7	Distributor's Address:	2030 Old Candler Road, Gainesville, GA 30507 USA
1.8	Emergency Phone:	**CHEMTEL: +1 (800) 255-3924**
1.9	Business Phone / Fax:	+1 (770) 534-0300 / +1 (770) 534-8954

2. HAZARDS IDENTIFICATION

2.1	Hazard Identification:	This product is classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia) **WARNING! FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED. HIGHLY FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION.** Classification: Aerosol level 1; Category 2 Flammable aerosol; Eye Irrit. 2B Hazard Statements (H): H-223 – Flammable Aerosol. H229 – Pressurized container: may burst if heated. H320 – Causes eye irritation. H280- Contains gas under pressure; may explode if heated. Precautionary Statement (P): P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking. P211 – Do not spray on an open flame or other ignition source. P251 – Do not pierce or burn, even after use. IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P337+P313 – If eye irritation persists: Get medical advice/attention. P410+P412 – Protect from sunlight. Do no expose to temperature exceeding 50°C (122 °F). P501 – Dispose of contents/container to licensed and permitted disposal or recycling facility.

3. COMPOSITION & INGREDIENT INFORMATION

Substance / Chemical Name(s)	CAS No.	EINECS No.	%	Other
ETHANOL (SD ALCOHOL 40B)	64-17-5	200-578-6	30-60	Flam. Liq. 2; H225
DIFLUOROETHANE (R-152a)	75-37-6	200-866-1	30-45	Flam. Gas 1; H220

4. FIRST AID MEASURES

4.1	First Aid:	Ingestion:	If ingested, do not induce vomiting! If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give water or milk to an unconscious person. Contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed.
		Skin:	If irritation occurs & product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with plenty of soap and water. Remove contaminated clothing and wash thoroughly before ruse. If irritation, redness or swelling persists, consult a physician immediately.
		Eyes:	If product get in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. Raise and lower eyelid(s) while flushing to ensure thorough irrigation. If problems persist seek immediate medical attention.
		Inhalation:	Remove victim to fresh air and keep comfortable for breathing.
4.2	Effects of Exposure:	Ingestion:	If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression.
		Skin:	May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals upon prolonged or repeated exposure.
		Eyes:	Moderately irritating to the eyes.
		Inhalation:	Vapors of this product may be moderately irritating to the nose, throat and other tissues of the respiratory system. Symptoms of overexposure can include coughing, wheezing, nasal congestion,

			and difficulty breathing. Inhalation of concentrated vapors can cause nervous system depression (e.g., drowsiness, dizziness, headaches, nausea).
4.3	Symptoms of Overexposure	Ingestion:	May cause nausea, vomiting and/or diarrhea and central nervous system depression.
		Skin:	Prolonged contact with skin may result in bleaching and irritation of skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas.
		Eyes:	Overexposure in eyes, may cause redness, itching and watering (risk of serious damage to eyes) Contact may cause mild eye irritation including stinging, watering and redness.
		Inhalation:	Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing.
4.4	Acute Health Effects:	Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.	
4.5	Chronic Health Effects:	No harmful or chronic health effects are expected to occur from a single accidental ingestion. These ingredients may be irritating to skin and mucous membrane of the eye and respiratory system. Overexposure may trigger asthma-like symptoms in some sensitive individuals. May also induce skin sensitization and respiratory hypersensitivity. Possible allergic dermatitis.	
4.6	Target Organs:	Eyes, skin, respiratory system.	
4.7	Medical Conditions Aggravated by Exposure	Acute health hazards may be delayed. Most common symptoms include irritating properties to eyes, respiratory system and skin. Existing dermatological conditions (such as eczema) and respiratory conditions (such as bronchial asthma and/or bronchitis) may be exacerbated.	

HEALTH		**1**
FLAMMABILITY		**3**
PHYSICAL HAZARDS		**0**
PROTECTIVE EQUIPMENT		**B**
EYES	**SK IN**	

5. FIREFIGHTING MEASURES

5.1	Fire and Explosion Hazards:	Level 1 Aerosol (NFPA 30B). Aerosols may burst at temperatures above 120° F. Cool uninvolved containers to prevent possible bursting. Aerosols may be projectile hazards when bursting. If aerosols are bursting, stay clear until bursting is complete. Containers may rupture and release flammable liquids and/or exposed gases if exposed to the heat of fire. Keep containers cool by spraying them with water until the fire has been extinguished.
5.2	Extinguishing Methods:	Water Fog, Foam, CO_2, Dry Chemical
5.3	Firefighting Procedures:	As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressure-demand_ and full protective gear. Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personnel. Fight fire upwind. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies.

6. ACCIDENTIAL RELEASE MEASURES

6.1	Spills:	Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment (PPE). Small spills Wear appropriate personal protective equipment including gloves and protective eyewear. Use a non-combustible material such as vermiculite or sand to soak up the product and place into a container for later disposal. Do not use water or a material such as "speedy dry" to soak up material. Sweep up material using non-sparking materials (e.g., plastic brooms, shovels, dustpans) and place into a plastic container or plastic liner within another container. Large spills: Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant.

7. HANDLING AND STORAGE INFORMATION

7.1	Work & Hygiene Practices	Do not eat, drink, or smoke while handling this product. Contents under pressure. Handle as to avoid puncturing container(s). When used as intended, no additional protective equipment is necessary. Use chemical goggles if eye contact is possible. Wash unintentional residues with soap and warm water.

7.2	Storage and Handling:	Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans) away from heat and direct sunlight. Avoid temperatures above 120 °F. Keep away from incompatible substances. Protect containers from physical damage. To avoid unintentional spraying, keep cap in place when not in use. Storage level 1.
7.3	Special Precautions:	Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 Exposure Limits: Ppm (mg/m³)

Chemical Name(s)	ACGIH TLV	ACGIH STEL	NOHSC ES-TWA	NOHSC ES-STEL	NOHSC ES-PEAK	OSHA PEL	OSHA STEL	OTHER
ETHANOL(SD ALCOHOL 40B)	1000	3000	1000	1800	NF	1000	1900	
DIFLOROETHANE (R-152a)	1000	NA	1000	NA	NA	NE	NA	

8.2	Ventilation & Engineering Controls	General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use. Use local or general exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the handling of this product.	
8.3	Respiratory Protection:	No special respiratory protection is required under typical circumstances of use or handling. In instances where dusts of this product are generated, and respiratory protection is needed, use only protection authorized by 29 CFR §1910.134, applicable U.S. State regulations, or the Canadian CAS Standard Z94.4-93 and applicable standards of Canadian Provinces, EC member States, or Australia.	
8.4	Eye Protection:	None required under normal conditions of use. Avoid eye contact. Safety glasses should be used when handling or using large quantities of this product (e.g., ≥ 1 gallon (3.8 L)).	
8.5	Hand Protection:	None required under normal conditions of use. However, may cause skin irritation is some sensitive individuals. When handling large quantities (e.g., ≥ 1 gallon (3.8 L)), wear rubber, nitrile or impervious plastic gloves.	
8.6	Body Protection:	No apron required when handling small quantities. When handling large quantities (e.g., ≥ 5 lbs.), eye wash station and deluge showers should be available. Upon completion of work activities involving large quantities of this product, wash any exposed areas thoroughly with soap and water.	

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Aerosol, clear misty spray of liquid
9.2	Odor:	Fresh Floral
9.3	Odor Threshold	NA
9.4	pH:	NA
9.5	Melting/Freezing Point	NA
9.6	Initial Boiling Point/ Boiling Range:	NA
9.7	Flashpoint:	-30 °F (-34 °C) TCC for propellant only: 35.6 °F (2 °C) EPA method 1010 (concentrate only)
9.8	Upper/Lower Flammability limits	NA
9.9	Vapor Pressure:	@ 20 °C (68° F) – Can pressure not to exceed 180 psig @ 55 °C (131 °F) 12.4 bar
9.10	Vapor Density	>1
9.11	Relative Density:	0.81-0.85
9.12	Solubility:	Soluble
9.13	Partition Coefficient (log P_{ow}):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature.	NA

9.16	Viscosity:	Aerosol at ambient temperature
9.17	Other Information:	Evaporation Rate >1: Percent Volatile 55%

10. STABILITY & REACTIVITY

10.1	Stability:	Stable at normal temperatures.
10.2	Hazardous Decomposition Products:	Oxides of carbon (CO, CO_2) and sulfur (SO_2)
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid	Excessive heat, direct sunlight, flames, heat sources and incompatible substances.
10.5	Incompatible Substances	Mixture with strong acids, alkalis or oxidizers.

11. TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Inhalation:	YES	Absorption:	YES	Ingestion:	YES
11.2	Toxicity Data:	This product was not tested on animals. Toxicology data, found in scientific literature, is available and not presented in this document. Hydrofluorocarbon-152a: LC_{50} (inh, 2 h, mouse): 977 g/m^3					
11.3	Acute Toxicity:	See Section 4.4					
11.4	Chronic Toxicity:	See Section 4.5					
11.5	Suspected Carcinogen:	No.					
11.6	Reproductive Toxicity:	This product is not reported to cause reproductive toxicity in humans.					
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.					
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.					
	Teratogenicity:	This product is not report to cause teratogenic effects in humans.					
	Reproductive Toxicity:	This product is not report to cause reproductive effects in humans.					
11.7	Irritancy of Product:	See Section 4.3					
11.8	Biological Exposure Indices:	NA					
11.9	Physician Recommendations:	Treat symptomatically.					

12. ECOLOGICAL INFORMATION

12.1	Environmental Stability:	There is no specific data available for this product.
12.2	Effects on Plants & Animals	There is no specific data available for this product.
12.3	Effects on Aquatic Life:	The product itself has not been tested as a whole. There is no specific data available for this product.

13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal:	Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Any disposal practice must be in compliance with local, state and federal laws and regulations. Contact the appropriate agency for specific information. A licensed facility or waste hauler must provide treatment, transport, storage and disposal of hazardous waste.
13.2	Special Considerations:	U.S. EPA Hazardous Waste – Characteristic – Ignitable (D001)

14. TRANSPORTATION INFORMATION

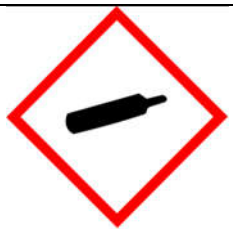
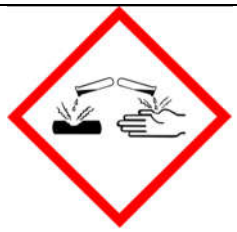
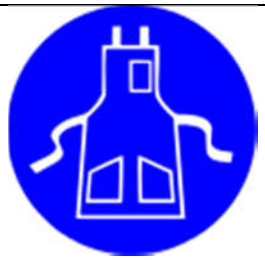
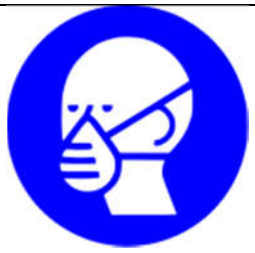
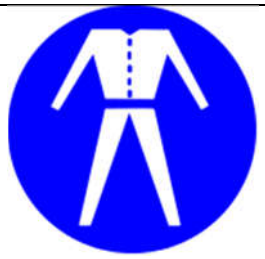
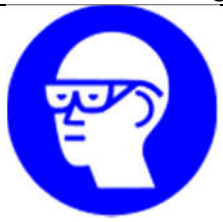
14.1	49 CFR (GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or CONSUMER COMMODITY, ORM-D (IP VOL ≤ 1.0 L) – until 12/31/2020
14.2	IATA (AIR)	UN1950, AEROSOLS, FLAMMABLE, 2.1 (LTD QTY, IP VOL ≤ 0.5 L); or ID8000, CONSUMER COMMODITY, ORM-D (IP VOL ≤ 0.5 l=L)
14.3	IMDG (OCN):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
14.4	TDGR (Canadian GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or MARK PACKAGE "LIMITED QUANTITY", "LTD QTY", OR "QUANT LTÉE" OR "QUANTITÉ LIMITÉE"
14.5	ADR/RID (EU):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
14.6	SCT (MEXICO):	UN1950, AEROSOLES, 2.1 (CANTIDAD LIMITADA, IP VOL ≤ 1.0 L)
14.7	ADGR (AUS):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)

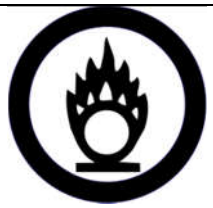
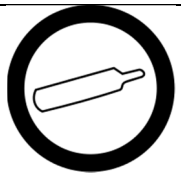
15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements:	This product does not contain any substance subject to SATA Title III, section 313 reporting requirements.	
15.2	SARA Threshold Planning Quantity:	There are no specific Threshold Planning Quantities for the components of this product.	
15.3	TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory.	
15.4	CERCLA Reportable Quantity (RQ):	Ethanol: 2270 kg; 5000 lbs.	
15.5	Other Federal Requirements:	This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR Subchapter G. (Cosmetics)	
15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR. The components of the product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substance List. WHMIS Class B5 (Flammable Aerosol)	
15.7	State Regulatory Information:	Ethanol is found on the following state criteria lists: Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Pennsylvania Right-to-Know list (PA), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ). Difluoroethane can be found on the following state criteria lists: MA and NJ. No other ingredients of this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI).	
15.8	Other Requirements:	The primary components of this product are listed in Annex I of EU Directive 67/548/EEC: Ethanol: Flammable (F). Risk Phrases ®: 11 – Flammable. Safety Phrases (S): 2-7-16 – Keep out of reach of children. Keep container tightly closed. Keep away from sources of ignition – No smoking.	

16. OTHER INFORMATION

16.1	Other Information:	**WARNING! FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED, HIGHLY FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION.** Keep away from heat, hot surfaces, sparks open flames and other ignition sources. No Smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid breathing vapor/spray. Wash thoroughly with soap and water after handling. Use only in a well ventilated area. Wear eye protection. Protect from sunlight. Do not expose to temperature exceeding 50 °C (122 °F). IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. **KEEP OUT OF REACH OF CHILDREN.**	
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.	
16.3	Disclaimer:	This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the base of KIK Custom Product's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.	
16.4	Prepared By:	**KIK Custom Products** 2030 Old Candler Road Gainesville, GA 30507 USA Tel: +1 (770) 534-0300 Fax: +1 (770) 534-8954 http://www.kikcorp.com	KIK CUSTOM PRODUCTS

Flammable	Explosive	Oxidizer
 Pressurized	 Corrosive	Toxic
Harmful/Irritating	Health Hazard	Environment
Face Shield and Protective Eyewear	 Apron	 Dust Mask
Scuba	 Protective Clothing	Full Suit
Boots	 Safety Glasses	Gloves

Full Face Respirator	Reactive	Irritant / Harmful
Biohazard	 Oxidizing	Flammable
Infectious	Corrosive	 Compressed
Toxic	Irritation	

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **90115/3**
Product name **SHAMPOO SOLARE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / eye protection / face protection.

SECTION 2. Hazards identification. ... / >>

Response:
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts		
CAS. 68439-57-6	5 - 9	Serious eye damage, category 1 H318, Skin irritation, category 2 H315
GALAXY LAPAO		
CAS. 866889-72-7	3 - 5	Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	1 - 5	Eye irritation, category 2 H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Fatty acids, C12-18, α-sulfo, 1-Me esters, sodium salts		
CAS. 85681-86-3	1 - 3	Serious eye damage, category 1 H318, Skin irritation, category 2 H315
JAGUAR EXCEL		
CAS. 65497-29-2	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran		
CAS. 1222-05-5	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

METHANOL
CAS. *67-56-1* 0 - 0.5 Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	260	200			SKIN.
TLV-ACGIH	-	262	200	328	250	
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN.
NIOSH	USA	260	200	325	250	SKIN.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

SECTION 8. Exposure controls/personal protection. ... / >>

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		fluido semi-trasparente		
Colour		colourless		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		2.500,0000 - 3.500,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

SECTION 11. Toxicological information. ... / >>

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).
1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

GALAXY LAPAO
LD50 (Oral). > 2000 mg/kg Rat
LD50 (Dermal). > 2174 mg/kg Rat

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts
LD50 (Oral). 2079 mg/kg rat (male/female)
LD50 (Dermal). > 6300 mg/kg rabbit
LC50 (Inhalation). > 52 mg/l/4h rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

JAGUAR EXCEL
LC50 - for Fish. < 1 mg/l/96h

GALAXY LAPAO
LC50 - for Fish. 18 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. 16 mg/l/48h Daphnia magna (mobility)
Chronic NOEC for Fish. 14 mg/l Oncorhynchus mykiss (96h)
Chronic NOEC for Crustacea. 4.3 mg/l Mobility Daphnia magna (48h)

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LC50 - for Fish. 1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea. 0.32 mg/l 21 d - Daphnia magna (riproduzione)

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LC50 - for Fish. 0.452 mg/l/96h
EC50 - for Crustacea. 0.47 mg/l/48h
EC50 - for Algae / Aquatic Plants. > 0.854 mg/l/72h Pseudokirchnerella subcapitata

SECTION 12. Ecological information. ... / >>

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish.	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea.	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants.	12.5 mg/l Desmodesmus subspicatus 72h

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts

LC50 - for Fish.	4.2 mg/l/96h Danio rerio
EC50 - for Crustacea.	4.53 mg/l/48h Ceriodaphnia sp.
EC50 - for Algae / Aquatic Plants.	5.2 mg/l/72h Skeletonema costatum
EC10 for Algae / Aquatic Plants.	3.9 mg/l/72h 72 h - Skeletonema costatum
Chronic NOEC for Crustacea.	6.3 mg/l 21d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants.	3.2 mg/l 72h - Skeletonema costatum

12.2. Persistence and degradability.

GALAXY LAPAO

Solubility in water.	346900 mg/l 20°C
Rapidly biodegradable.	

METHANOL

Solubility in water.	mg/l 1000 - 10000
Rapidly biodegradable.	

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts

Solubility in water.	292000 mg/l a 20°C
Rapidly biodegradable.	

12.3. Bioaccumulative potential.

METHANOL

Partition coefficient: n-octanol/water.	-0.77
BCF.	0.2

Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts

Partition coefficient: n-octanol/water.	-1.3
BCF.	70.8

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
67-56-1 METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
120-57-0 piperonal

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-56-1 METHANOL

EPCRA 302 EHS TPQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL

EPCRA 313 TRI:

67-56-1	METHANOL

RCRA Code:

67-56-1	METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
57-55-6	1,2-PROPANEDIOL
67-56-1	METHANOL
56-81-5	Glycerol

New Jersey:

56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
57-55-6	1,2-PROPANEDIOL
67-56-1	METHANOL
56-81-5	Glycerol

New York:

1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
57-55-6	1,2-PROPANEDIOL
67-56-1	METHANOL
56-81-5	Glycerol

California:

1310-73-2	SODIUM HYDROXIDE
67-56-1	METHANOL

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

67-56-1	METHANOL D

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information. ... / >>

None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit

SECTION 16. Other information. ... / >>

- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **90116/3**
Product name **PAK SOLARE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P321 Specific treatment (see sect.4 on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	3 - 5	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride			
CAS.	*112-02-7*	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated			
CAS.	*106842-44-8*	0.1 - 0.5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran			
CAS.	*1222-05-5*	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM
Colour	white
Odour	REF. STD.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		20.000,0000 - 60.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin.
Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

LANETTE 22
LD50 (Oral). > 2000 mg/kg rat

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SECTION 11. Toxicological information. ... / >>

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

LANETTE 22
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

Dimethyl,Methyl(Aminoethylaminoisobutyl) Siloxane, Trimethylsiloxy-terminated
EC50 - for Crustacea. 11 mg/l/48h

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LC50 - for Fish. 0.452 mg/l/96h
EC50 - for Crustacea. 0.47 mg/l/48h
EC50 - for Algae / Aquatic Plants. > 0.854 mg/l/72h Pseudokirchnerella subcapitata

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):

120-57-0	piperonal

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

SECTION 15. Regulatory information. ... / >>

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value

SECTION 16. Other information. ... / >>

- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **90117/3**
Product name **MILK SOLARE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Skin sensitization, category 1 — May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H317 May cause an allergic skin reaction.

Precautionary statements:
Prevention:
P261 Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .

SECTION 2. Hazards identification. ... / >>

P321 Specific treatment (see sect.4 on this label).
P333+P313 If skin irritation or rash occurs: get medical advice.
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
VITAMINA E/DL-ALPHA-TOCOPHEROL			
CAS.	*10191-41-0*	0.5 - 1	Skin sensitization, category 1 H317
cetrimonium chloride			
CAS.	*112-02-7*	0.25 - 0.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
METHANOL			
CAS.	*67-56-1*	0 - 0.5	Flammable liquid, category 2 H225, Acute toxicity, category 3 H301, Acute toxicity, category 3 H311, Acute toxicity, category 3 H331, Specific target organ toxicity - single exposure, category 1 H370

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	260	200			SKIN.
TLV-ACGIH	-	262	200	328	250	
OSHA	USA	260	200			
CAL/OSHA	USA	260	200	325 (C)	1000 (C)	SKIN.
NIOSH	USA	260	200	325	250	SKIN.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

SECTION 8. Exposure controls/personal protection. ... / >>

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		1.000,0000 - 7.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

SECTION 11. Toxicological information. ... / >>

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

UVINUL MC 80 / ACESORB OMC
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 0.511 mg/l/4h

PANTENOLO D
LD50 (Oral). > 10000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

UVINUL MC 80 / ACESORB OMC
LC50 - for Fish. > 100 mg/l/96h Cyprinus carpio
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Pseudokirchneriella subcapitata

PANTENOLO D
LC50 - for Fish. > 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish. > 1000 mg/l 96h
Chronic NOEC for Crustacea. 100 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 100 mg/l 72h

12.2. Persistence and degradability.

UVINUL MC 80 / ACESORB OMC
Solubility in water. 0.041 mg/l

METHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

12.3. Bioaccumulative potential.

PANTENOLO D
Partition coefficient: n-octanol/water. -106 mg/l Log KOW

METHANOL
Partition coefficient: n-octanol/water. -0.77
BCF. 0.2

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 112(b):

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-56-1	METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):

120-57-0	piperonal

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

67-56-1	METHANOL

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-56-1	METHANOL
67-63-0	PROPAN-2-OL

RCRA Code:

67-56-1	METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
67-56-1	METHANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
67-56-1	METHANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-56-1	METHANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

SECTION 15. Regulatory information. ... / >>

New York:

67-56-1	METHANOL

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-56-1	METHANOL
67-63-0	PROPAN-2-OL
56-81-5	Glycerol

California:

67-56-1	METHANOL
67-63-0	PROPAN-2-OL

Proposition 65:

WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

67-56-1	METHANOL D

International Regulations.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Candadian WHMIS.

Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H311	Toxic in contact with skin.
H370	Causes damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number

SECTION 16. Other information. ... / >>

- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **90120/3**
Product name **DOPOSOLE VISO CORPO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Skin sensitization, category 1 — May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H317 May cause an allergic skin reaction.

Precautionary statements:
Prevention:
P261 Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .

SECTION 2. Hazards identification. ... / >>

P321 Specific treatment (see sect.4 on this label).
P333+P313 If skin irritation or rash occurs: get medical advice.
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
VITAMINA E/DL-ALPHA-TOCOPHEROL		
CAS. 10191-41-0	0.1 - 0.5	Skin sensitization, category 1 H317
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran		
CAS. 1222-05-5	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
Alcohols, C12-15-branched and linear		
CAS. 90604-40-3	0.025 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
CYCLOHEXANE		
CAS. 110-82-7	0 - 0.25	Flammable liquid, category 2 H225, Aspiration hazard, category 1 H304, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H336, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	344	100		
OEL	EU	700	200		
OSHA	USA	1050	300		
CAL/OSHA	USA	1.05	300		
NIOSH	USA	1050	300		

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM GEL		
Colour		white		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	60	°C.	(140 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	30.000,0000 - 50.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.

VITAMINA E/DL-ALPHA-TOCOPHEROL

LD50 (Oral).	> 4000 mg/kg rat
LD50 (Dermal).	1480 mg/kg rabbit

CYCLOHEXANE

LD50 (Oral).	> 5000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg Rabbit
LC50 (Inhalation).	13.9 mg/l/4h Rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

LD50 (Oral).	> 4640 mg/kg rat
LD50 (Dermal).	> 10000 mg/kg Rat

Benzoic acid, C12-15-alkyl esters

LD50 (Oral).	> 2000 mg/kg rat

Alcohols, C12-15-branched and linear

LD50 (Oral).	> 2000 mg/kg rat

Carcinogenicity Assessment:
79-10-7 ACRYLIC ACID

SECTION 11. Toxicological information. ... / >>

ACGIH:: A4
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil, sewers and waterways. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

CYCLOHEXANE

LC50 - for Fish.	4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	3.89 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	32.7 mg/l/72h Chlorella vulgaris

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

LC50 - for Fish.	0.452 mg/l/96h
EC50 - for Crustacea.	0.47 mg/l/48h
EC50 - for Algae / Aquatic Plants.	> 0.854 mg/l/72h Pseudokirchnerella subcapitata

Alcohols, C12-15-branched and linear

EC50 - for Crustacea.	4.4 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.085 mg/l/72h

12.2. Persistence and degradability.
CYCLOHEXANE: not easily biodegradable.

CYCLOHEXANE
Solubility in water. mg/l 0.1 - 100
Rapidly biodegradable.

12.3. Bioaccumulative potential.
CYCLOHEXANE: moderate bioaccumulation potential (log Ko/w>3).

CYCLOHEXANE
Partition coefficient: n-octanol/water. 3.44

12.4. Mobility in soil.
CYCLOHEXANE: slightly mobile in soil.

CYCLOHEXANE
Partition coefficient: soil/water. 2.89

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
79-10-7 ACRYLIC ACID

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
120-57-0 piperonal

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
110-82-7 CYCLOHEXANE
79-10-7 ACRYLIC ACID

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

EPCRA 313 TRI:

110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

RCRA Code:

110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
56-81-5	Glycerol

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
56-81-5	Glycerol

New Jersey:

56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
56-81-5	Glycerol

New York:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
56-81-5	Glycerol

California:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

SECTION 15. Regulatory information. ... / >>

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Asp. Tox. 1	Aspiration hazard, category 1
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.

SECTION 16. Other information. ... / >>

- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71198/31**
Product name **OI OIL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2	Highly flammable liquid and vapour.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.

SECTION 2. Hazards identification. ... / >>

P241	Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P321	Specific treatment (see sect.4 on this label).
P333+P313	If skin irritation or rash occurs: get medical advice.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: use . . . to extinguish.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

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Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
decamethylcyclopentasiloxane		
CAS. 541-02-6	60 - 100	
SILICONE 200/065-BELSIL DM0.65		
CAS. 107-46-0	9 - 24	Flammable liquid, category 2 H225, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
VITAMINA E/DL-ALPHA-TOCOPHEROL		
CAS. 10191-41-0	0.1 - 0.5	Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

decamethylcyclopentasiloxane					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	0	10	0	0

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CLEAR LIQUID		
Colour		yellow		
Odour		REF. STD.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid.

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

SILICONE 200/065-BELSIL DM0.65
LD50 (Dermal). > 2000 mg/kg rat
LC50 (Inhalation). 87 mg/l/4h rat

UVINUL MC 80 / ACESORB OMC
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 0.511 mg/l/4h

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

decamethylcyclopentasiloxane
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 8.67 mg/l/4h

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

SILICONE 200/065-BELSIL DM0.65
LC50 - for Fish. 3.02 mg/l/96h
EC50 - for Crustacea. 0.93 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.55 mg/l/72h

UVINUL MC 80 / ACESORB OMC
LC50 - for Fish. > 100 mg/l/96h Cyprinus carpio
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Pseudokirchneriella subcapitata

decamethylcyclopentasiloxane
LC50 - for Fish. > 16 mg/l/96h
EC50 - for Crustacea. > 2.9 mg/l/48h
EC10 for Algae / Aquatic Plants. > 12 mg/l/72h 96 h
Chronic NOEC for Fish. > 14 mg/l 90 d
Chronic NOEC for Crustacea. > 15 mg/l 21 d

12.2. Persistence and degradability.

UVINUL MC 80 / ACESORB OMC
Solubility in water. 0.041 mg/l

decamethylcyclopentasiloxane
Solubility in water. < 0.1 mg/l

12.3. Bioaccumulative potential.

SILICONE 200/065-BELSIL DM0.65
Partition coefficient: n-octanol/water. 5.06 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: UN: 1993

14.2. UN proper shipping name.

ADR / RID:	FLAMMABLE LIQUID, N.O.S. (SILICONE 200/065-BELSIL DM0.65)
IMDG:	FLAMMABLE LIQUID, N.O.S. (SILICONE 200/065-BELSIL DM0.65)
IATA:	FLAMMABLE LIQUID, N.O.S. (SILICONE 200/065-BELSIL DM0.65)

14.3. Transport hazard class(es).

ADR / RID:	Class: 3	Label: 3	
IMDG:	Class: 3	Label: 3	
IATA:	Class: 3	Label: 3	

14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	Nr. Kemler: 33	Limited Quantity 1 L	Tunnel restriction code (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-E	Limited Quantity 1 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
101-84-8 diphenyl ether

Minnesota:
101-84-8 diphenyl ether

New Jersey:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
101-84-8 diphenyl ether

New York:
No component(s) listed.

Pennsylvania:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
101-84-8 diphenyl ether
119-36-8 methyl salicylate

California:
101-84-8 diphenyl ether

SECTION 15. Regulatory information. ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
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- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit

SECTION 16. Other information. ... / >>

- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **66041**
Product name **ACTIVATION SOURCE 7VOL. 900ML**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

SECTION 2. Hazards identification. ... / >>

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	1 - 3	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335
Alcohols, C12-14, ethoxylated		
CAS. 68439-50-9	0.5 - 1	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		WHITE		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		2,0 -3,0		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	600 - 1200
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

HYDROGEN PEROXIDE SOLUTION

LD50 (Oral).	1193 mg/kg Rat at the concentration of 35%

Alcohols, C12-14, ethoxylated

LD50 (Oral).	> 300 mg/kg

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

Alcohols, C12-14, ethoxylated

LC50 - for Fish.	> 1 mg/l/96h

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

Alcohols, C12-14, ethoxylated
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

Alcohols, C12-14, ethoxylated
Partition coefficient: n-octanol/water. 4.75

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 2984

14.2. UN proper shipping name.

ADR / RID: HYDROGEN PEROXIDE, AQUEOUS
IMDG: HYDROGEN PEROXIDE, AQUEOUS
IATA: HYDROGEN PEROXIDE, AQUEOUS

14.3. Transport hazard class(es).

ADR / RID: Class: 5.1 Label: 5.1

IMDG: Class: 5.1 Label: 5.1

IATA: Class: 5.1 Label: 5.1

14.4. Packing group.

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 50 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (E)
IMDG:	EMS: F-H, S-Q	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 30 L Maximum quantity: 2,5 L -	Packaging instructions: 555 Packaging instructions: 551

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
64-19-7 ACETIC ACID

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

Minnesota:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

New Jersey:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

New York:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

Pennsylvania:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

California:

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64-19-7	ACETIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
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- LC50: Lethal Concentration 50%
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- OEL: Occupational Exposure Level
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- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- 6 NYCRR part 597
- Cal/OSHA website
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- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **66044**
Product name **ACTIVATION SOURCE 30VOL. 900ML**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1A	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H314 Causes severe skin burns and eye damage.

Precautionary statements:
Prevention:
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / clothing and eye / face protection.
Response:

SECTION 2. Hazards identification. ... / >>

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P363	Wash contaminated clothing before reuse.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	9 - 20	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335
Alcohols, C12-14, ethoxylated		
CAS. 68439-50-9	0.5 - 1	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

SECTION 5. Firefighting measures. ... / >>

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		WHITE		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		2,0 -3,0		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	600 - 1200
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

HYDROGEN PEROXIDE SOLUTION

LD50 (Oral).	1193 mg/kg Rat at the concentration of 35%

Alcohols, C12-14, ethoxylated

LD50 (Oral).	> 300 mg/kg

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

Alcohols, C12-14, ethoxylated
LC50 - for Fish. > 1 mg/l/96h

12.2. Persistence and degradability.

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

Alcohols, C12-14, ethoxylated
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

Alcohols, C12-14, ethoxylated
Partition coefficient: n-octanol/water. 4.75

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 2984

14.2. UN proper shipping name.

ADR / RID: HYDROGEN PEROXIDE, AQUEOUS
IMDG: HYDROGEN PEROXIDE, AQUEOUS
IATA: HYDROGEN PEROXIDE, AQUEOUS

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 5.1	Label: 5.1	
IMDG:	Class: 5.1	Label: 5.1	
IATA:	Class: 5.1	Label: 5.1	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 50 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (E)
IMDG:	EMS: F-H, S-Q	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 555
	Pass.:	Maximum quantity: 2,5 L	Packaging instructions: 551
	Special Instructions:	-	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
64-19-7 ACETIC ACID

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Minnesota:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New Jersey:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New York:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Pennsylvania:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

California:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition

SECTION 16. Other information. ... / >>

- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **66045**
Product name **ACTIVATION SOURCE 40VOL. 900ML**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1A	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H314 Causes severe skin burns and eye damage.

Precautionary statements:
Prevention:
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / clothing and eye / face protection.
Response:

SECTION 2. Hazards identification. ... / >>

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P363	Wash contaminated clothing before reuse.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	9 - 20	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335
Alcohols, C12-14, ethoxylated		
CAS. 68439-50-9	0.5 - 1	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

SECTION 5. Firefighting measures. ... / >>

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		WHITE		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		2,0 -3,0		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	600 - 1200
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

HYDROGEN PEROXIDE SOLUTION

LD50 (Oral).	1193 mg/kg Rat at the concentration of 35%

Alcohols, C12-14, ethoxylated

LD50 (Oral).	> 300 mg/kg

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

Alcohols, C12-14, ethoxylated
LC50 - for Fish. > 1 mg/l/96h

12.2. Persistence and degradability.

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

Alcohols, C12-14, ethoxylated
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

Alcohols, C12-14, ethoxylated
Partition coefficient: n-octanol/water. 4.75

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 2984

14.2. UN proper shipping name.

ADR / RID: HYDROGEN PEROXIDE, AQUEOUS
IMDG: HYDROGEN PEROXIDE, AQUEOUS
IATA: HYDROGEN PEROXIDE, AQUEOUS

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 5.1	Label: 5.1	
IMDG:	Class: 5.1	Label: 5.1	
IATA:	Class: 5.1	Label: 5.1	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 50 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (E)
IMDG:	EMS: F-H, S-Q	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 555
	Pass.:	Maximum quantity: 2,5 L	Packaging instructions: 551
	Special Instructions:	-	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
64-19-7 ACETIC ACID

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Minnesota:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New Jersey:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New York:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Pennsylvania:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

California:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition

SECTION 16. Other information. ... / >>

- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **67227/3**
Product name **ALCHEMIC CONDITIONER CHOCOLATE NEW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

2. Hazards identification ... / >>

Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
Storage:
--
Disposal:
--

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
cetrimonium chloride		
CAS 112-02-7	1 ≤ x < 2	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC 203-928-6		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5. Fire-fighting measures ... / >>

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

8. Exposure controls/personal protection ... / >>

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		VISCOUS CREAM	
Colour		CHOCOLATE BROWN	
Odour		STD. REF.	
Odour threshold		Not available	
pH		4,50 - 5,50	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		0,9954 - 1,0054	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

10. Stability and reactivity ... / >>

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

11. Toxicological information ... / >>

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

cetrimonium chloride

LC50 - for Fish	0.71 mg/l/96h
EC50 - for Crustacea	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.08 mg/l/72h
Chronic NOEC for Crustacea	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

12.2. Persistence and degradability

cetrimonium chloride

Solubility in water	240 mg/l

12.3. Bioaccumulative potential

cetrimonium chloride

Partition coefficient: n-octanol/water	3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

TSCA:
All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

15. Regulatory information ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
84-66-2 diethyl phthalate

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
84-66-2 diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

Minnesota:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

New Jersey:
56-81-5 Glycerol

New York:
No component(s) listed.

Pennsylvania:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL
25265-71-8 oxydipropanol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1C	Skin corrosion, category 1C
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
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LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
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- PEL: Predicted exposure level
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- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- 6 NYCRR part 597
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- California Safe Drinking Water and Toxic Enforcement Act
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- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
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Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **67225/3**
Product name **ALCHEMIC CONDITIONER COPPER NEW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

2. Hazards identification ... / >>

Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
Storage:
--
Disposal:
--

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
cetrimonium chloride		
CAS 112-02-7	1 ≤ x < 2	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC 203-928-6		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5. Fire-fighting measures ... / >>

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

8. Exposure controls/personal protection ... / >>

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		VISCOUS CREAM	
Colour		copper	
Odour		STD. REF.	
Odour threshold		Not available	
pH		4,50 - 5,50	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		0,9940 - 1,0040	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

10. Stability and reactivity ... / >>

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

11. Toxicological information ... / >>

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

cetrimonium chloride

LC50 - for Fish	0.71 mg/l/96h
EC50 - for Crustacea	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.08 mg/l/72h
Chronic NOEC for Crustacea	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

12.2. Persistence and degradability

cetrimonium chloride

Solubility in water	240 mg/l

12.3. Bioaccumulative potential

cetrimonium chloride

Partition coefficient: n-octanol/water	3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

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Information not available

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13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
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Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

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All components are listed on TSCA Inventory.

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16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

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The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **67219/3**
Product name **ALCHEMIC CONDITIONER GOLDEN NEW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

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Signal words: Warning

Hazard statements:
H319 Causes serious eye irritation.
H315 Causes skin irritation.

Precautionary statements:
Prevention:
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.
Response:
P302+P352 IF ON SKIN: wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

2. Hazards identification ... / >>

Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
Storage:
--
Disposal:
--

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
cetrimonium chloride		
CAS 112-02-7	1 ≤ x < 2	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC 203-928-6		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5. Fire-fighting measures ... / >>

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

8. Exposure controls/personal protection ... / >>

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		VISCOUS CREAM	
Colour		yellow	
Odour		STD. REF.	
Odour threshold		Not available	
pH		4,50 - 5,50	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		0,9931 - 1,0031	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

10. Stability and reactivity ... / >>

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

11. Toxicological information ... / >>

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

cetrimonium chloride

LC50 - for Fish	0.71 mg/l/96h
EC50 - for Crustacea	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.08 mg/l/72h
Chronic NOEC for Crustacea	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

12.2. Persistence and degradability

cetrimonium chloride

Solubility in water	240 mg/l

12.3. Bioaccumulative potential

cetrimonium chloride

Partition coefficient: n-octanol/water	3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

TSCA:
All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

15. Regulatory information ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

84-66-2	diethyl phthalate

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

84-66-2	diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:

56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL

Minnesota:

56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL

New Jersey:

56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL
25265-71-8	oxydipropanol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1C	Skin corrosion, category 1C
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website

- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **67223/3**
Product name **ALCHEMIC CONDITIONER RED NEW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

2. Hazards identification ... / >>

Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
Storage:
--
Disposal:
--

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
cetrimonium chloride		
CAS 112-02-7	1 ≤ x < 2	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC 203-928-6		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5. Fire-fighting measures ... / >>

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

8. Exposure controls/personal protection ... / >>

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		VISCOUS CREAM	
Colour		RED PINK	
Odour		STD. REF.	
Odour threshold		Not available	
pH		4,50 - 5,50	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		0,9943 - 1,0043	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

10. Stability and reactivity ... / >>

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

11. Toxicological information ... / >>

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

cetrimonium chloride

LC50 - for Fish	0.71 mg/l/96h
EC50 - for Crustacea	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.08 mg/l/72h
Chronic NOEC for Crustacea	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

12.2. Persistence and degradability

cetrimonium chloride

Solubility in water	240 mg/l

12.3. Bioaccumulative potential

cetrimonium chloride

Partition coefficient: n-octanol/water	3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

TSCA:
All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

15. Regulatory information ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
84-66-2 diethyl phthalate

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
84-66-2 diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

Minnesota:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

New Jersey:
56-81-5 Glycerol

New York:
No component(s) listed.

Pennsylvania:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL
25265-71-8 oxydipropanol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1C	Skin corrosion, category 1C
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
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LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
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- GHS: Globally Harmonized System of classification and labeling of chemicals
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- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
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- LD50: Lethal dose 50%
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- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
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- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- 6 NYCRR part 597
- Cal/OSHA website

- California Safe Drinking Water and Toxic Enforcement Act
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- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
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Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code:	**67231/3**
Product name	**ALCHEMIC CONDITIONER PROFESSIONAL SILVER**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

2. Hazards identification ... / >>

Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
Storage:
--
Disposal:
--

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
cetrimonium chloride		
CAS 112-02-7	1 ≤ x < 2	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC 203-928-6		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5. Fire-fighting measures ... / >>

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

8. Exposure controls/personal protection ... / >>

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		FLUID CREAM	
Colour		PURPLE	
Odour		STD. REF.	
Odour threshold		Not available	
pH		4,50 - 5,50	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		0,9950 - 1,0050	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		20.000,0000 - 50.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

10. Stability and reactivity ... / >>

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

11. Toxicological information ... / >>

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

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cetrimonium chloride

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12.2. Persistence and degradability

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Solubility in water	240 mg/l

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Partition coefficient: n-octanol/water	3.08 Log Kow

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Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

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14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

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15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

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16. Other information

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Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **67229/3**
Product name **ALCHEMIC CONDITIONER SILVER NEW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

2. Hazards identification ... / >>

Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
Storage:
--
Disposal:
--

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
cetrimonium chloride		
CAS 112-02-7	1 ≤ x < 2	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC 203-928-6		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5. Fire-fighting measures ... / >>

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

8. Exposure controls/personal protection ... / >>

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		VISCOUS CREAM	
Colour		PURPLE	
Odour		STD. REF.	
Odour threshold		Not available	
pH		4,50 - 5,50	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		0,9953 - 1,0053	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

10. Stability and reactivity ... / >>

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

11. Toxicological information ... / >>

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

cetrimonium chloride

LC50 - for Fish	0.71 mg/l/96h
EC50 - for Crustacea	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.08 mg/l/72h
Chronic NOEC for Crustacea	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

12.2. Persistence and degradability

cetrimonium chloride

Solubility in water	240 mg/l

12.3. Bioaccumulative potential

cetrimonium chloride

Partition coefficient: n-octanol/water	3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

TSCA:
All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

15. Regulatory information ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
84-66-2 diethyl phthalate

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
84-66-2 diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

Minnesota:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

New Jersey:
56-81-5 Glycerol

New York:
No component(s) listed.

Pennsylvania:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL
25265-71-8 oxydipropanol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1C	Skin corrosion, category 1C
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website

- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **67221/3**
Product name **ALCHEMIC CONDITIONER TOBACCO NEW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

2. Hazards identification ... / >>

Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
Storage:
--
Disposal:
--

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
cetrimonium chloride		
CAS 112-02-7	1 ≤ x < 2	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC 203-928-6		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5. Fire-fighting measures ... / >>

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

8. Exposure controls/personal protection ... / >>

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		VISCOUS CREAM	
Colour		LIGHT BROWN	
Odour		STD. REF.	
Odour threshold		Not available	
pH		4,50 - 5,50	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		0,9940 - 1,0040	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

10. Stability and reactivity ... / >>

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

11. Toxicological information ... / >>

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

cetrimonium chloride

LC50 - for Fish	0.71 mg/l/96h
EC50 - for Crustacea	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.08 mg/l/72h
Chronic NOEC for Crustacea	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

12.2. Persistence and degradability

cetrimonium chloride

Solubility in water	240 mg/l

12.3. Bioaccumulative potential

cetrimonium chloride

Partition coefficient: n-octanol/water	3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

TSCA:
All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

15. Regulatory information ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

84-66-2	diethyl phthalate

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:

84-66-2	diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:

56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL

Minnesota:

56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL

New Jersey:

56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL
25265-71-8	oxydipropanol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1C	Skin corrosion, category 1C
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website

- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **67226/3**
Product name **ALCHEMIC SHAMPOO CHOCOLATE NEW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Serious eye damage, category 1	Causes serious eye damage.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.

2. Hazards identification ... / >>

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS *156572-81-5*	2 ≤ x < 5	**Eye irritation, category 2 H319**
EC *700-150-3*		
INDEX		
Cocamidopropyl Betaine		
CAS *61789-40-0*	3 ≤ x < 5	**Serious eye damage, category 1 H318**
EC *263-058-8*		
INDEX		
Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts		
CAS *68650-39-5*	1 ≤ x < 2	**Serious eye damage, category 1 H318**
EC *272-043-5*		
INDEX		
sodium N-lauroylsarcosinate		
CAS *137-16-6*	1 ≤ x < 2	**Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC *205-281-5*		
INDEX		
[8-[(p-aminophenyl)azo]-7-hydroxy-2-naphthyl]trimethylammonium chloride		
CAS *26381-41-9*	0.1 ≤ x < 1	**Skin sensitization, category 1 H317**
EC *247-640-9*		
INDEX		
Guar Hydroxypropyltrimonium Chloride		
CAS *65497-29-2*	0 ≤ x < 0.25	
EC		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops

4. First-aid measures ... / >>

breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and

7. Handling and storage ... / >>

wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		SEMI TRANSPARENT VISCOUS FLUID	
Colour		DARK BROWN	
Odour		STD. REF.	
Odour threshold		Not available	
pH		5,00 - 6,20	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	

9. Physical and chemical properties ... / >>

Vapour density	Not available
Relative density	1,0405 - 1,0505
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	5.000,0000 - 9.000,0000
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

11. Toxicological information ... / >>

[8-[(p-aminophenyl)azo]-7-hydroxy-2-naphthyl]trimethylammonium chloride
LD50 (Oral) > 2000 mg/kg rat

Cocamidopropyl Betaine
LD50 (Oral) 2335 mg/kg rat

sodium N-lauroylsarcosinate
LD50 (Oral) > 5000 mg/kg rat

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral) 8400 mg/kg rat
LD50 (Dermal) > 2000 mg/kg rat

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

Guar Hydroxypropyltrimonium Chloride

LC50 - for Fish 0.8 mg/l/96h

EC50 - for Crustacea 100 mg/l/48h

12. Ecological information ... / >>

Cocamidopropyl Betaine

LC50 - for Fish	1.11 mg/l/96h
Chronic NOEC for Fish	0.135 mg/l 37d
Chronic NOEC for Crustacea	0.32 mg/l 21d
Chronic NOEC for Algae / Aquatic Plants	0.36 mg/l Desmodesmus subspicatus 72h

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts

LC50 - for Fish	> 10 mg/l/96h
EC50 - for Crustacea	> 10 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate

LC50 - for Fish	56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants	12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability

Guar Hydroxypropyltrimonium Chloride
NOT rapidly degradable

[8-[(p-aminophenyl)azo]-7-hydroxy-2-naphthyl]trimethylammonium chloride

Solubility in water	> a 25°C mg/l

Cocamidopropyl Betaine
Rapidly degradable

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly degradable

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

15. Regulatory information ... / >>

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
84-66-2	diethyl phthalate

EPCRA 313 TRI:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

RCRA Code:

110-82-7	CYCLOHEXANE
84-66-2	diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:

56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL

Minnesota:

56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL

New Jersey:

56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL
25265-71-8	oxydipropanol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H330	Fatal if inhaled.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **67224/3**
Product name **ALCHEMIC SHAMPOO COPPER NEW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement
Serious eye damage, category 1 — Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
Prevention:
P280 Wear eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor.
Storage:
--

2. Hazards identification ... / >>

Disposal:

--

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS *156572-81-5*	2 ≤ x < 5	**Eye irritation, category 2 H319**
EC *700-150-3*		
INDEX		
Cocamidopropyl Betaine		
CAS *61789-40-0*	3 ≤ x < 5	**Serious eye damage, category 1 H318**
EC *263-058-8*		
INDEX		
Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts		
CAS *68650-39-5*	1 ≤ x < 2	**Serious eye damage, category 1 H318**
EC *272-043-5*		
INDEX		
sodium N-lauroylsarcosinate		
CAS *137-16-6*	1 ≤ x < 2	**Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC *205-281-5*		
INDEX		
Guar Hydroxypropyltrimonium Chloride		
CAS *65497-29-2*	0 ≤ x < 0.25	
EC		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7. Handling and storage ... / >>

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		SEMI TRANSPARENT VISCOUS FLUID		
Colour		copper		
Odour		STD. REF.		
Odour threshold		Not available		
pH		5,00 - 6,20		
Melting point / freezing point		Not available		
Initial boiling point		Not available		
Boiling range		Not available		
Flash point	>	93	°C	(199,4 °F)
Evaporation rate		Not available		
Flammability (solid, gas)		Not available		
Lower inflammability limit		Not available		
Upper inflammability limit		Not available		
Lower explosive limit		Not available		
Upper explosive limit		Not available		
Vapour pressure		Not available		
Vapour density		Not available		
Relative density		1,0399 - 1,0499		
Solubility		Not available		
Partition coefficient: n-octanol/water		Not available		
Auto-ignition temperature		Not available		
Decomposition temperature		Not available		
Viscosity		5.000,0000 - 9.000,0000		
Explosive properties		Not available		
Oxidising properties		Not available		

9. Physical and chemical properties ... / >>

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

Cocamidopropyl Betaine

LD50 (Oral)	2335 mg/kg rat

sodium N-lauroylsarcosinate

LD50 (Oral)	> 5000 mg/kg rat

11. Toxicological information ... / >>

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LD50 (Oral)	8400 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rat

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

Guar Hydroxypropyltrimonium Chloride

LC50 - for Fish	0.8 mg/l/96h
EC50 - for Crustacea	100 mg/l/48h

Cocamidopropyl Betaine

LC50 - for Fish	1.11 mg/l/96h
Chronic NOEC for Fish	0.135 mg/l 37d
Chronic NOEC for Crustacea	0.32 mg/l 21d
Chronic NOEC for Algae / Aquatic Plants	0.36 mg/l Desmodesmus subspicatus 72h

12. Ecological information ... / >>

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts

LC50 - for Fish	> 10 mg/l/96h
EC50 - for Crustacea	> 10 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate

LC50 - for Fish	56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants	12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability

Guar Hydroxypropyltrimonium Chloride
NOT rapidly degradable

Cocamidopropyl Betaine
Rapidly degradable

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly degradable

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14. Transport information ... / >>

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
84-66-2	diethyl phthalate

15. Regulatory information ... / >>

EPCRA 313 TRI:
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

RCRA Code:
110-82-7 CYCLOHEXANE
84-66-2 diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

Minnesota:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

New Jersey:
56-81-5 Glycerol

New York:
No component(s) listed.

Pennsylvania:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL
25265-71-8 oxydipropanol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H330	Fatal if inhaled.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

16. Other information ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
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- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
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- REL: Recommended exposure limit
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- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **67218/3**
Product name **ALCHEMIC SHAMPOO GOLDEN NEW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement
Serious eye damage, category 1 — Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
Prevention:
P280 Wear eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor.
Storage:
--

2. Hazards identification ... / >>

Disposal:

--

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS *156572-81-5*	2 ≤ x < 5	**Eye irritation, category 2 H319**
EC *700-150-3*		
INDEX		
Cocamidopropyl Betaine		
CAS *61789-40-0*	3 ≤ x < 5	**Serious eye damage, category 1 H318**
EC *263-058-8*		
INDEX		
Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts		
CAS *68650-39-5*	1 ≤ x < 2	**Serious eye damage, category 1 H318**
EC *272-043-5*		
INDEX		
sodium N-lauroylsarcosinate		
CAS *137-16-6*	1 ≤ x < 2	**Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC *205-281-5*		
INDEX		
Guar Hydroxypropyltrimonium Chloride		
CAS *65497-29-2*	0 ≤ x < 0.25	
EC		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7. Handling and storage ... / >>

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		SEMI TRANSPARENT VISCOUS FLUID		
Colour		yellow		
Odour		STD. REF.		
Odour threshold		Not available		
pH		5,00 - 6,20		
Melting point / freezing point		Not available		
Initial boiling point		Not available		
Boiling range		Not available		
Flash point	>	93	°C	(199,4 °F)
Evaporation rate		Not available		
Flammability (solid, gas)		Not available		
Lower inflammability limit		Not available		
Upper inflammability limit		Not available		
Lower explosive limit		Not available		
Upper explosive limit		Not available		
Vapour pressure		Not available		
Vapour density		Not available		
Relative density		1,0392 - 1,0492		
Solubility		Not available		
Partition coefficient: n-octanol/water		Not available		
Auto-ignition temperature		Not available		
Decomposition temperature		Not available		
Viscosity		5.000,0000 - 9.000,0000		
Explosive properties		Not available		
Oxidising properties		Not available		

9. Physical and chemical properties ... / >>

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

Cocamidopropyl Betaine

LD50 (Oral)	2335 mg/kg rat

sodium N-lauroylsarcosinate

LD50 (Oral)	> 5000 mg/kg rat

11. Toxicological information ... / >>

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LD50 (Oral)	8400 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rat

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

Guar Hydroxypropyltrimonium Chloride

LC50 - for Fish	0.8 mg/l/96h
EC50 - for Crustacea	100 mg/l/48h

Cocamidopropyl Betaine

LC50 - for Fish	1.11 mg/l/96h
Chronic NOEC for Fish	0.135 mg/l 37d
Chronic NOEC for Crustacea	0.32 mg/l 21d
Chronic NOEC for Algae / Aquatic Plants	0.36 mg/l Desmodesmus subspicatus 72h

12. Ecological information ... / >>

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts

LC50 - for Fish	> 10 mg/l/96h
EC50 - for Crustacea	> 10 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate

LC50 - for Fish	56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants	12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability

Guar Hydroxypropyltrimonium Chloride
NOT rapidly degradable

Cocamidopropyl Betaine
Rapidly degradable

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly degradable

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14. Transport information ... / >>

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
84-66-2	diethyl phthalate

15. Regulatory information ... / >>

EPCRA 313 TRI:
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

RCRA Code:
110-82-7 CYCLOHEXANE
84-66-2 diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

Minnesota:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

New Jersey:
56-81-5 Glycerol

New York:
No component(s) listed.

Pennsylvania:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL
25265-71-8 oxydipropanol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H330	Fatal if inhaled.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

16. Other information ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **67222/3**
Product name **ALCHEMIC SHAMPOO RED NEW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement
Serious eye damage, category 1 — Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
Prevention:
P280 Wear eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor.
Storage:
--

2. Hazards identification ... / >>

Disposal:

--

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS *156572-81-5*	2 ≤ x < 5	**Eye irritation, category 2 H319**
EC *700-150-3*		
INDEX		
Cocamidopropyl Betaine		
CAS *61789-40-0*	3 ≤ x < 5	**Serious eye damage, category 1 H318**
EC *263-058-8*		
INDEX		
Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts		
CAS *68650-39-5*	1 ≤ x < 2	**Serious eye damage, category 1 H318**
EC *272-043-5*		
INDEX		
sodium N-lauroylsarcosinate		
CAS *137-16-6*	1 ≤ x < 2	**Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC *205-281-5*		
INDEX		
Guar Hydroxypropyltrimonium Chloride		
CAS *65497-29-2*	0 ≤ x < 0.25	
EC		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7. Handling and storage ... / >>

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		SEMI TRANSPARENT VISCOUS FLUID	
Colour		RED	
Odour		STD. REF.	
Odour threshold		Not available	
pH		5,00 - 6,20	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		1,0403 - 1,0503	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		5.000,0000 - 9.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9. Physical and chemical properties ... / >>

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

Cocamidopropyl Betaine

LD50 (Oral)	2335 mg/kg rat

sodium N-lauroylsarcosinate

LD50 (Oral)	> 5000 mg/kg rat

11. Toxicological information ... / >>

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LD50 (Oral)	8400 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rat

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

Guar Hydroxypropyltrimonium Chloride

LC50 - for Fish	0.8 mg/l/96h
EC50 - for Crustacea	100 mg/l/48h

Cocamidopropyl Betaine

LC50 - for Fish	1.11 mg/l/96h
Chronic NOEC for Fish	0.135 mg/l 37d
Chronic NOEC for Crustacea	0.32 mg/l 21d
Chronic NOEC for Algae / Aquatic Plants	0.36 mg/l Desmodesmus subspicatus 72h

12. Ecological information ... / >>

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts

LC50 - for Fish	> 10 mg/l/96h
EC50 - for Crustacea	> 10 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate

LC50 - for Fish	56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants	12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability

Guar Hydroxypropyltrimonium Chloride
NOT rapidly degradable

Cocamidopropyl Betaine
Rapidly degradable

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly degradable

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14. Transport information ... / >>

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
84-66-2	diethyl phthalate

15. Regulatory information ... / >>

EPCRA 313 TRI:
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

RCRA Code:
110-82-7 CYCLOHEXANE
84-66-2 diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

Minnesota:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

New Jersey:
56-81-5 Glycerol

New York:
No component(s) listed.

Pennsylvania:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL
25265-71-8 oxydipropanol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H330	Fatal if inhaled.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

16. Other information ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **67228/3**
Product name **ALCHEMIC SHAMPOO SILVER NEW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement
Serious eye damage, category 1 — Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
Prevention:
P280 Wear eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor.
Storage:
--

2. Hazards identification ... / >>

Disposal:

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2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS *156572-81-5*	2 ≤ x < 5	**Eye irritation, category 2 H319**
EC *700-150-3*		
INDEX		
Cocamidopropyl Betaine		
CAS *61789-40-0*	3 ≤ x < 5	**Serious eye damage, category 1 H318**
EC *263-058-8*		
INDEX		
Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts		
CAS *68650-39-5*	1 ≤ x < 2	**Serious eye damage, category 1 H318**
EC *272-043-5*		
INDEX		
sodium N-lauroylsarcosinate		
CAS *137-16-6*	1 ≤ x < 2	**Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC *205-281-5*		
INDEX		
Guar Hydroxypropyltrimonium Chloride		
CAS *65497-29-2*	0 ≤ x < 0.25	
EC		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7. Handling and storage ... / >>

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		SEMI TRANSPARENT VISCOUS FLUID		
Colour		PURPLE		
Odour		STD. REF.		
Odour threshold		Not available		
pH		5,00 - 6,20		
Melting point / freezing point		Not available		
Initial boiling point		Not available		
Boiling range		Not available		
Flash point	>	93	°C	(199,4 °F)
Evaporation rate		Not available		
Flammability (solid, gas)		Not available		
Lower inflammability limit		Not available		
Upper inflammability limit		Not available		
Lower explosive limit		Not available		
Upper explosive limit		Not available		
Vapour pressure		Not available		
Vapour density		Not available		
Relative density		1,0390 - 1,0490		
Solubility		Not available		
Partition coefficient: n-octanol/water		Not available		
Auto-ignition temperature		Not available		
Decomposition temperature		Not available		
Viscosity		5.000,0000 - 9.000,0000		
Explosive properties		Not available		
Oxidising properties		Not available		

9. Physical and chemical properties ... / >>

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

Cocamidopropyl Betaine

LD50 (Oral)	2335 mg/kg rat

sodium N-lauroylsarcosinate

LD50 (Oral)	> 5000 mg/kg rat

11. Toxicological information ... / >>

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LD50 (Oral)	8400 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rat

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

Guar Hydroxypropyltrimonium Chloride

LC50 - for Fish	0.8 mg/l/96h
EC50 - for Crustacea	100 mg/l/48h

Cocamidopropyl Betaine

LC50 - for Fish	1.11 mg/l/96h
Chronic NOEC for Fish	0.135 mg/l 37d
Chronic NOEC for Crustacea	0.32 mg/l 21d
Chronic NOEC for Algae / Aquatic Plants	0.36 mg/l Desmodesmus subspicatus 72h

12. Ecological information ... / >>

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts

LC50 - for Fish	> 10 mg/l/96h
EC50 - for Crustacea	> 10 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate

LC50 - for Fish	56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants	12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability

Guar Hydroxypropyltrimonium Chloride
NOT rapidly degradable

Cocamidopropyl Betaine
Rapidly degradable

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly degradable

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14. Transport information ... / >>

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
84-66-2	diethyl phthalate

15. Regulatory information ... / >>

EPCRA 313 TRI:
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

RCRA Code:
110-82-7 CYCLOHEXANE
84-66-2 diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

Minnesota:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

New Jersey:
56-81-5 Glycerol

New York:
No component(s) listed.

Pennsylvania:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL
25265-71-8 oxydipropanol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H330	Fatal if inhaled.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

16. Other information ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **67220/3**
Product name **ALCHEMIC SHAMPOO TOBACCO NEW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement
Serious eye damage, category 1 — Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.

Precautionary statements:
Prevention:
P280 Wear eye protection / face protection.
Response:
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor.
Storage:
--

2. Hazards identification ... / >>

Disposal:

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2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS *156572-81-5*	2 ≤ x < 5	**Eye irritation, category 2 H319**
EC *700-150-3*		
INDEX		
Cocamidopropyl Betaine		
CAS *61789-40-0*	3 ≤ x < 5	**Serious eye damage, category 1 H318**
EC *263-058-8*		
INDEX		
Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts		
CAS *68650-39-5*	1 ≤ x < 2	**Serious eye damage, category 1 H318**
EC *272-043-5*		
INDEX		
sodium N-lauroylsarcosinate		
CAS *137-16-6*	1 ≤ x < 2	**Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC *205-281-5*		
INDEX		
Guar Hydroxypropyltrimonium Chloride		
CAS *65497-29-2*	0 ≤ x < 0.25	
EC		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7. Handling and storage ... / >>

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		SEMI TRANSPARENT VISCOUS FLUID	
Colour		LIGHT BROWN	
Odour		STD. REF.	
Odour threshold		Not available	
pH		5,00 - 6,20	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		1,0391 - 1,0491	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		5.000,0000 - 9.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9. Physical and chemical properties ... / >>

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

Cocamidopropyl Betaine

LD50 (Oral)	2335 mg/kg rat

sodium N-lauroylsarcosinate

LD50 (Oral)	> 5000 mg/kg rat

11. Toxicological information ... / >>

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LD50 (Oral)	8400 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rat

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

Guar Hydroxypropyltrimonium Chloride

LC50 - for Fish	0.8 mg/l/96h
EC50 - for Crustacea	100 mg/l/48h

Cocamidopropyl Betaine

LC50 - for Fish	1.11 mg/l/96h
Chronic NOEC for Fish	0.135 mg/l 37d
Chronic NOEC for Crustacea	0.32 mg/l 21d
Chronic NOEC for Algae / Aquatic Plants	0.36 mg/l Desmodesmus subspicatus 72h

12. Ecological information ... / >>

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts

LC50 - for Fish	> 10 mg/l/96h
EC50 - for Crustacea	> 10 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate

LC50 - for Fish	56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants	12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability

Guar Hydroxypropyltrimonium Chloride
NOT rapidly degradable

Cocamidopropyl Betaine
Rapidly degradable

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly degradable

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14. Transport information ... / >>

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
84-66-2	diethyl phthalate

15. Regulatory information ... / >>

EPCRA 313 TRI:
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

RCRA Code:
110-82-7 CYCLOHEXANE
84-66-2 diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

Minnesota:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL

New Jersey:
56-81-5 Glycerol

New York:
No component(s) listed.

Pennsylvania:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL
25265-71-8 oxydipropanol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 2	Acute toxicity, category 2
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H330	Fatal if inhaled.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

16. Other information ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61084**
Product name **A NEW COLOUR ACTIVATOR 5 VOL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

SECTION 2. Hazards identification. ... / >>

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	1 - 3	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335
Alcohols, C12-14, ethoxylated		
CAS. 68439-50-9	0.5 - 1	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		WHITE		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		2,5 -3,5		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	1500 - 2500
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

HYDROGEN PEROXIDE SOLUTION

LD50 (Oral).	1193 mg/kg Rat at the concentration of 35%

Alcohols, C12-14, ethoxylated

LD50 (Oral).	> 300 mg/kg

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

Alcohols, C12-14, ethoxylated

LC50 - for Fish.	> 1 mg/l/96h

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

Alcohols, C12-14, ethoxylated
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

Alcohols, C12-14, ethoxylated
Partition coefficient: n-octanol/water. 4.75

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 2984

14.2. UN proper shipping name.

ADR / RID: HYDROGEN PEROXIDE, AQUEOUS
IMDG: HYDROGEN PEROXIDE, AQUEOUS
IATA: HYDROGEN PEROXIDE, AQUEOUS

14.3. Transport hazard class(es).

ADR / RID: Class: 5.1 Label: 5.1

IMDG: Class: 5.1 Label: 5.1

IATA: Class: 5.1 Label: 5.1

14.4. Packing group.

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 50 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (E)
IMDG:	EMS: F-H, S-Q	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 30 L Maximum quantity: 2,5 L -	Packaging instructions: 555 Packaging instructions: 551

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
64-19-7 ACETIC ACID

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

Minnesota:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

New Jersey:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

New York:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

Pennsylvania:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

California:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
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- IC50: Immobilization Concentration 50%
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- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
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- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61066**
Product name **A NEW COLOUR ACTIVATOR 10 VOL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

SECTION 2. Hazards identification. ... / >>

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	3 - 5	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335
Alcohols, C12-14, ethoxylated		
CAS. 68439-50-9	0.5 - 1	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		WHITE		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		2,5 -3,5		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	1500 - 2500
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

HYDROGEN PEROXIDE SOLUTION

LD50 (Oral).	1193 mg/kg Rat at the concentration of 35%

Alcohols, C12-14, ethoxylated

LD50 (Oral).	> 300 mg/kg

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

Alcohols, C12-14, ethoxylated

LC50 - for Fish.	> 1 mg/l/96h

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

Alcohols, C12-14, ethoxylated
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

Alcohols, C12-14, ethoxylated
Partition coefficient: n-octanol/water. 4.75

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 2984

14.2. UN proper shipping name.

ADR / RID: HYDROGEN PEROXIDE, AQUEOUS
IMDG: HYDROGEN PEROXIDE, AQUEOUS
IATA: HYDROGEN PEROXIDE, AQUEOUS

14.3. Transport hazard class(es).

ADR / RID: Class: 5.1 Label: 5.1

IMDG: Class: 5.1 Label: 5.1

IATA: Class: 5.1 Label: 5.1

14.4. Packing group.

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 50	Limited Quantities: 5 L	Tunnel restriction code: (E)
	Special Provision: -		
IMDG:	EMS: F-H, S-Q	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 555
	Pass.:	Maximum quantity: 2,5 L	Packaging instructions: 551
	Special Instructions:	-	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
64-19-7 ACETIC ACID

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

Minnesota:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

New Jersey:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

New York:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

Pennsylvania:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

California:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
64-19-7	ACETIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61067**
Product name **A NEW COLOUR ACTIVATOR 20 VOL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1A	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H314 Causes severe skin burns and eye damage.

Precautionary statements:
Prevention:
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / clothing and eye / face protection.
Response:

SECTION 2. Hazards identification. ... / >>

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P363	Wash contaminated clothing before reuse.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	5 - 9	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335
Alcohols, C12-14, ethoxylated		
CAS. 68439-50-9	0.5 - 1	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

SECTION 5. Firefighting measures. ... / >>

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		WHITE		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		2,5 -3,5		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	2000 - 3000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

HYDROGEN PEROXIDE SOLUTION

LD50 (Oral).	1193 mg/kg Rat at the concentration of 35%

Alcohols, C12-14, ethoxylated

LD50 (Oral).	> 300 mg/kg

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

Alcohols, C12-14, ethoxylated
LC50 - for Fish. > 1 mg/l/96h

12.2. Persistence and degradability.

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

Alcohols, C12-14, ethoxylated
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

Alcohols, C12-14, ethoxylated
Partition coefficient: n-octanol/water. 4.75

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 2984

14.2. UN proper shipping name.

ADR / RID: HYDROGEN PEROXIDE, AQUEOUS
IMDG: HYDROGEN PEROXIDE, AQUEOUS
IATA: HYDROGEN PEROXIDE, AQUEOUS

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 5.1	Label: 5.1	
IMDG:	Class: 5.1	Label: 5.1	
IATA:	Class: 5.1	Label: 5.1	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 50 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (E)
IMDG:	EMS: F-H, S-Q	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 555
	Pass.:	Maximum quantity: 2,5 L	Packaging instructions: 551
	Special Instructions:	-	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
64-19-7 ACETIC ACID

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Minnesota:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New Jersey:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New York:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Pennsylvania:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

California:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition

SECTION 16. Other information. ... / >>

- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 08 / 11.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61068**
Product name **A NEW COLOUR ACTIVATOR 30 VOL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1A	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H314 Causes severe skin burns and eye damage.

Precautionary statements:
Prevention:
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / clothing and eye / face protection.
Response:

SECTION 2. Hazards identification. ... / >>

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P363	Wash contaminated clothing before reuse.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	9 - 20	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335
Alcohols, C12-14, ethoxylated		
CAS. 68439-50-9	0.5 - 1	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

SECTION 5. Firefighting measures. ... / >>

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		WHITE		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		2,5 -3,5		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	2000 - 3000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

HYDROGEN PEROXIDE SOLUTION

LD50 (Oral).	1193 mg/kg Rat at the concentration of 35%

Alcohols, C12-14, ethoxylated

LD50 (Oral).	> 300 mg/kg

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

Alcohols, C12-14, ethoxylated
LC50 - for Fish. > 1 mg/l/96h

12.2. Persistence and degradability.

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

Alcohols, C12-14, ethoxylated
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

Alcohols, C12-14, ethoxylated
Partition coefficient: n-octanol/water. 4.75

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 2984

14.2. UN proper shipping name.

ADR / RID: HYDROGEN PEROXIDE, AQUEOUS
IMDG: HYDROGEN PEROXIDE, AQUEOUS
IATA: HYDROGEN PEROXIDE, AQUEOUS

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 5.1	Label: 5.1	
IMDG:	Class: 5.1	Label: 5.1	
IATA:	Class: 5.1	Label: 5.1	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 50 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (E)
IMDG:	EMS: F-H, S-Q	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 555
	Pass.:	Maximum quantity: 2,5 L	Packaging instructions: 551
	Special Instructions:	-	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
64-19-7 ACETIC ACID

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Minnesota:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New Jersey:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New York:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Pennsylvania:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

California:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition

SECTION 16. Other information. ... / >>

- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61069**
Product name **A NEW COLOUR ACTIVATOR 40 VOL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1A	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H314 Causes severe skin burns and eye damage.

Precautionary statements:
Prevention:
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / clothing and eye / face protection.
Response:

SECTION 2. Hazards identification. ... / >>

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P363	Wash contaminated clothing before reuse.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	9 - 20	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335
Alcohols, C12-14, ethoxylated		
CAS. 68439-50-9	0.5 - 1	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

SECTION 5. Firefighting measures. ... / >>

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		WHITE		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		2,5 -3,5		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	2000 - 3000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

HYDROGEN PEROXIDE SOLUTION

LD50 (Oral).	1193 mg/kg Rat at the concentration of 35%

Alcohols, C12-14, ethoxylated

LD50 (Oral).	> 300 mg/kg

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

Alcohols, C12-14, ethoxylated
LC50 - for Fish. > 1 mg/l/96h

12.2. Persistence and degradability.

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

Alcohols, C12-14, ethoxylated
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

Alcohols, C12-14, ethoxylated
Partition coefficient: n-octanol/water. 4.75

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 2984

14.2. UN proper shipping name.

ADR / RID: HYDROGEN PEROXIDE, AQUEOUS
IMDG: HYDROGEN PEROXIDE, AQUEOUS
IATA: HYDROGEN PEROXIDE, AQUEOUS

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 5.1	Label: 5.1	
IMDG:	Class: 5.1	Label: 5.1	
IATA:	Class: 5.1	Label: 5.1	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 50 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (E)
IMDG:	EMS: F-H, S-Q	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 555
	Pass.:	Maximum quantity: 2,5 L	Packaging instructions: 551
	Special Instructions:	-	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
64-19-7 ACETIC ACID

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Minnesota:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New Jersey:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New York:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Pennsylvania:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

California:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
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- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition

SECTION 16. Other information. ... / >>

- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61056**
Product name **A NEW COLOUR BLEACHING POWDER**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Acute toxicity, category 4	Harmful if swallowed.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Respiratory sensitization, category 1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

SECTION 2. Hazards identification. ... / >>

H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P270	Do no eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / clothing and eye / face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.

Response:

P301+P312	IF SWALLOWED: call a POISON CENTER / doctor / . . . / if you feel unwell.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
DISODIUM METASILICATE		
CAS. 6834-92-0	24 - 40	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335
Potassium persulphate		
CAS. 7727-21-1	24 - 40	Explosive, division 1.5 H205, Oxidising solid, category 3 H272, Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Respiratory sensitization, category 1 H334, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		powder		
Colour		light blue		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		10,8 - 11,8		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
The product can decompose and/or react violently.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
See previous paragraph.

10.3. Possibility of hazardous reactions.
See paragraph 10.1.

DISODIUM METASILICATE: may react dangerously with fluorine and lithium.

10.4. Conditions to avoid.
As the product decomposes even at ambient temperature, it must be stored and used at a controlled temperature. Avoid violent blows.

10.5. Incompatible materials.
DISODIUM METASILICATE: in aqueous solution it is incompatible with acids, organic anhydrides, acrilates, alcohols, aldehydes, alkyl oxides, cresoles, caprolactam solutions, epichlorohydrin, ethylene dichloride; glycols, isocyanates, ketones, nitrates, phenols and vinyl acetate.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).
This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Inhalation of this product causes sensitization, which may then give rise to a series of inflammatory episodes, most of all characterized by obstruction and affecting the respiratory system. Sometimes, sensitization phenomena arise together with evident rhinitis and asthma.
Damages to the respiratory system depend on the inhaled quantity, on the product concentration in the working environment and on the exposure time.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

DISODIUM METASILICATE
LD50 (Oral). 600 mg/kg Rat

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

DISODIUM METASILICATE
Solubility in water. 210000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1479

14.2. UN proper shipping name.

ADR / RID: OXIDIZING SOLID, N.O.S. (POTASSIUM PERSULPHATE)
IMDG: OXIDIZING SOLID, N.O.S. (POTASSIUM PERSULPHATE)
IATA: OXIDIZING SOLID, N.O.S. (POTASSIUM PERSULPHATE)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 5.1	Label: 5.1	
IMDG:	Class: 5.1	Label: 5.1	
IATA:	Class: 5.1	Label: 5.1	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 50 Special Provision: -	Limited Quantities: 5 kg	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-Q	Limited Quantities: 5 kg	
IATA:	Cargo:	Maximum quantity: 100 Kg	Packaging instructions: 563
	Pass.:	Maximum quantity: 25 Kg	Packaging instructions: 559
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
7727-21-1 Potassium persulphate

Minnesota:
No component(s) listed.

New Jersey:
7727-21-1 Potassium persulphate

New York:
No component(s) listed.

Pennsylvania:
7727-21-1 Potassium persulphate

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Expl. 1.5	Explosive, division 1.5
Ox. Sol. 3	Oxidising solid, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2

SECTION 16. Other information. ... / >>

Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Resp. Sens. 1	Respiratory sensitization, category 1
Skin Sens. 1	Skin sensitization, category 1
H205	May mass explode in fire.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
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- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
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- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 03 / 05 / 07 / 08 / 10 / 11 / 16.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60100/3**
Product name	**TONO SU TONO 3.0 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 4-CHLORORESORCINOL May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
2-METHYL-p-PHENYLENEDIAMINE SULFATE

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 1 ≤ x < 2,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
4-CHLORORESORCINOL
CAS *95-88-5* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *202-462-0*
INDEX
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.

SECTION 8. Exposure controls/personal protection ... / >>

TLV-ACGIH ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		APPEARANCE
Colour		Colour
Odour		REF.STD
Odour threshold		Not available
pH		6,8000 - 7,1000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	0,0000 - 0,0000
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,66 %
VOC (volatile carbon) :	10,82 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

4-CHLORORESORCINOL
4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation - vapours) of the mixture:	> 20 mg/l
LC50 (Inhalation - mists / powders) of the mixture:	> 5 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-CHLORORESORCINOL

LD50 (Oral)	370 mg/kg rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

SECTION 11. Toxicological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin
May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
4-CHLORORESORCINOL

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information ... / >>

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water	> 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

4-CHLORORESORCINOL

Solubility in water	> 100000 mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

ETHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2,68 mg/l

Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Solubility in water	> a 20°C mg/l

Rapidly degradable

12.3. Bioaccumulative potential

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Partition coefficient: n-octanol/water	0,74 Log Kow

SECTION 12. Ecological information ... / >>

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)
IMDG: Class: 3 Label: 3 (8)
IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4

SECTION 16. Other information ... / >>

Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament

SECTION 16. Other information ... / >>

7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60101**
Product name	**TONO SU TONO 4.0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**uso professionale**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 4-CHLORORESORCINOL 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 2-METHYL-p-PHENYLENEDIAMINE SULFATE May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0,6 ≤ x < 1 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
4-CHLORORESORCINOL
CAS *95-88-5* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *202-462-0*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.

SECTION 8. Exposure controls/personal protection ... / >>

TLV-ACGIH ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid	
Colour		dark red	
Odour		REF.STD	
Odour threshold		Not available	
pH		7,0000 - 7,2000	
Melting point / freezing point		Not available	
Initial boiling point	>	35	°C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0270 - 1,0370
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,66 %
VOC (volatile carbon) :	10,82 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

4-CHLORORESORCINOL
4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-CHLORORESORCINOL

LD50 (Oral)	370 mg/kg rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

SECTION 11. Toxicological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
4-CHLORORESORCINOL
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-METHYL-p-PHENYLENEDIAMINE SULFATE

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information ... / >>

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water	> 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

4-CHLORORESORCINOL

Solubility in water	> 100000 mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

ETHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2,68 mg/l

Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Solubility in water	> a 20°C mg/l

Rapidly degradable

12.3. Bioaccumulative potential

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Partition coefficient: n-octanol/water	0,74 Log Kow

SECTION 12. Ecological information ... / >>

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)
IMDG: Class: 3 Label: 3 (8)
IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3 - 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4

SECTION 16. Other information ... / >>

Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament

SECTION 16. Other information ... / >>

7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60102**
Product name **TONO SU TONO 5.0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 2-METHYL-p-PHENYLENEDIAMINE SULFATE May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0,5 ≤ x < 0,7 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		dark red
Odour		REF.STD
Odour threshold		Not available
pH		7,0000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0270 - 1,0370
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,36 %
VOC (volatile carbon) :	10,71 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

SECTION 11. Toxicological information ... / >>

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-METHYL-p-PHENYLENEDIAMINE SULFATE

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

SECTION 12. Ecological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water > 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 20°C mg/l

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

SECTION 12. Ecological information ... / >>

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

SECTION 14. Transport information ... / >>

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3	Packaging instructions: 365 Packaging instructions: 354

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.

SECTION 16. Other information ... / >>

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

SECTION 16. Other information ... / >>

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60103**
Product name	**TONO SU TONO 6.0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**uso professionale**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 2-METHYL-p-PHENYLENEDIAMINE SULFATE May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P370+P378	In case of fire: use carbon dioxide, foam, chemical powder to extinguish.

Contains: D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
PHOSPHORIC ACID
ETHANOLAMINE

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0,5 ≤ x < 0,7 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		light red to dark red
Odour		REF.STD
Odour threshold		Not available
pH		7,0000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0270 - 1,0370
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,19 %
VOC (volatile carbon) :	10,64 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

SECTION 11. Toxicological information ... / >>

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-METHYL-p-PHENYLENEDIAMINE SULFATE

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

SECTION 12. Ecological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water > 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 20°C mg/l

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

SECTION 12. Ecological information ... / >>

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14).
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

SECTION 14. Transport information ... / >>

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.

SECTION 16. Other information ... / >>

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

SECTION 16. Other information ... / >>

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60104/3**
Product name	**TONO SU TONO 7.0 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 4-CHLORORESORCINOL 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 2-METHYL-p-PHENYLENEDIAMINE SULFATE May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		

SECTION 3. Composition/information on ingredients ... / >>

ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*

2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0,5 ≤ x < 0,7 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX

4-CHLORORESORCINOL
CAS *95-88-5* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *202-462-0*
INDEX

cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

SECTION 5. Firefighting measures ... / >>

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		light red to dark red
Odour		REF.STD
Odour threshold		Not available
pH		7,0000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C

SECTION 9. Physical and chemical properties ... / >>

Boiling range		Not available
Flash point	<	32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		1,0270 - 1,0370
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,31 %
VOC (volatile carbon) :	10,69 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

4-CHLORORESORCINOL
4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-CHLORORESORCINOL

LD50 (Oral)	370 mg/kg rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

SECTION 11. Toxicological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
4-CHLORORESORCINOL
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-METHYL-p-PHENYLENEDIAMINE SULFATE

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information ... / >>

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water	> 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

4-CHLORORESORCINOL

Solubility in water	> 100000 mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

ETHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2,68 mg/l

Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Solubility in water	> a 20°C mg/l

Rapidly degradable

12.3. Bioaccumulative potential

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Partition coefficient: n-octanol/water	0,74 Log Kow

SECTION 12. Ecological information ... / >>

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)
IMDG: Class: 3 Label: 3 (8)
IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4

SECTION 16. Other information ... / >>

Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament

SECTION 16. Other information ... / >>

7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60105/3**
Product name	**TONO SU TONO 8.0 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 2-METHYL-p-PHENYLENEDIAMINE SULFATE May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		

SECTION 3. Composition/information on ingredients ... / >>

Reg. no. *01-2119486455-28*
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		clear liquid
Colour		light red to dark red
Odour		REF.STD
Odour threshold		Not available
pH		7,0000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0270 - 1,0370
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,31 %
VOC (volatile carbon) :	10,69 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

SECTION 11. Toxicological information ... / >>

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-METHYL-p-PHENYLENEDIAMINE SULFATE

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

SECTION 12. Ecological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water > 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 20°C mg/l

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

SECTION 12. Ecological information ... / >>

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

SECTION 14. Transport information ... / >>

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3	Packaging instructions: 365 Packaging instructions: 354

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.

SECTION 16. Other information ... / >>

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

SECTION 16. Other information ... / >>

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60106/31**
Product name	**TONO SU TONO 9.0 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 2-METHYL-p-PHENYLENEDIAMINE SULFATE 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P370+P378	In case of fire: use carbon dioxide, foam, chemical powder to extinguish.

Contains: D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
Betaines, coco alkyldimethyl

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	0 ≤ x < 0,5	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		

SECTION 3. Composition/information on ingredients ... / >>

Reg. no. *01-2119486455-28*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		clear liquid
Colour		LIGHT RED
Odour		REF.STD
Odour threshold		Not available
pH		6,8000 - 7,1000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		0,0000 - 0,0000
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

SECTION 9. Physical and chemical properties ... / >>

VOC (Directive 2010/75/EC) : 20,26 %
VOC (volatile carbon) : 10,27 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	Not classified (no significant component)

SECTION 11. Toxicological information ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
2-METHYL-p-PHENYLENEDIAMINE SULFATE
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water	> 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

ETHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

SECTION 12. Ecological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level

SECTION 16. Other information ... / >>

- PNEC: Predicted no effect concentration- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60107**
Product name **TONO SU TONO 8,1**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent

SECTION 6. Accidental release measures ... / >>

any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		Not available
Colour		Not available
Odour		Not available
Odour threshold		Not available
pH		Not available
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		Not available
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,09 %
VOC (volatile carbon) :	10,60 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

SECTION 11. Toxicological information ... / >>

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

SECTION 12. Ecological information ... / >>

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006

SECTION 16. Other information ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60108/3**
Product name	**TONO SU TONO 7,11 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 2-METHYL-p-PHENYLENEDIAMINE SULFATE (p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		

SECTION 3. Composition/information on ingredients ... / >>

ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate
CAS *54381-16-7* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *259-134-5*
INDEX
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

SECTION 5. Firefighting measures ... / >>

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		dark - orange
Odour		REF.STD
Odour threshold		Not available
pH		6,8000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0326 - 1,0426
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,26 %
VOC (volatile carbon) :	10,67 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

LD50 (Oral)	> 107 mg/kg ratto

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

SECTION 11. Toxicological information ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-METHYL-p-PHENYLENEDIAMINE SULFATE
(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h

SECTION 12. Ecological information ... / >>

Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

Solubility in water	a 20°C mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water	> 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

ETHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2,68 mg/l

Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Solubility in water	> a 20°C mg/l

Rapidly degradable

12.3. Bioaccumulative potential

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Partition coefficient: n-octanol/water	0,74 Log Kow

cineole

Partition coefficient: n-octanol/water	2,5 Log Kow

ETHANOLAMINE

Partition coefficient: n-octanol/water	-1,91

SECTION 12. Ecological information ... / >>

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4

SECTION 16. Other information ... / >>

Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament

SECTION 16. Other information ... / >>

7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60109**
Product name **TONO SU TONO 9,11**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one (p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:
Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate
CAS *54381-16-7* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *259-134-5*
INDEX
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
RESORCINOL
CAS *108-46-3* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 3 H412**
EC *203-585-2*
INDEX *604-010-00-1*
Reg. no. *01-2119480136-40*
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.

SECTION 8. Exposure controls/personal protection ... / >>

TLV-ACGIH ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

RESORCINOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLEP	ITA	45	10		
OEL	EU	45	10		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		dark - orange
Odour		REF.STD
Odour threshold		Not available
pH		6,8000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		1,0270 - 1,0370
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available

SECTION 9. Physical and chemical properties ... / >>

Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,41 %
VOC (volatile carbon) :	10,73 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

SECTION 11. Toxicological information ... / >>

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

RESORCINOL

LD50 (Oral)	301 mg/kg rat
LD50 (Dermal)	3360 mg/kg rabbit

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

LD50 (Oral)	> 107 mg/kg ratto

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:

SECTION 11. Toxicological information ... / >>

cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

RESORCINOL

LC50 - for Fish	29,5 mg/l/96h
EC50 - for Crustacea	1 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea	0,32 mg/l

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

SECTION 12. Ecological information ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

RESORCINOL

Solubility in water	1400 mg/l

Rapidly degradable

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

Solubility in water	a 20°C mg/l

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

ETHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2,68 mg/l

Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Solubility in water	> a 20°C mg/l

Rapidly degradable

12.3. Bioaccumulative potential

RESORCINOL

Partition coefficient: n-octanol/water	0,85 Log Pow 25°

cineole

Partition coefficient: n-octanol/water	2,5 Log Kow

ETHANOLAMINE

Partition coefficient: n-octanol/water	-1,91

Alcohols, C12-14

Partition coefficient: n-octanol/water	5,4

ETHANOL

Partition coefficient: n-octanol/water	-0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 12. Ecological information ... / >>

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID:	FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG:	FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA:	FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3	Packaging instructions: 365 Packaging instructions: 354

SECTION 14. Transport information ... / >>

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

SECTION 16. Other information ... / >>

H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

SECTION 16. Other information ... / >>

Changes to previous review:
The following sections were modified:
12 / 14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60110/3**
Product name	**TONO SU TONO 4,14 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 2-Amino-6-chloro-4-nitrophenol RESORCINOL May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
2-METHYL-p-PHENYLENEDIAMINE SULFATE

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 1 ≤ x < 2,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
RESORCINOL
CAS *108-46-3* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 3 H412**
EC *203-585-2*
INDEX *604-010-00-1*
Reg. no. *01-2119480136-40*
2-Amino-6-chloro-4-nitrophenol
CAS *6358-09-4* 0 ≤ x < 0,5 **Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *228-762-1*
INDEX
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

SECTION 5. Firefighting measures ... / >>

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIREExcess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

RESORCINOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLEP	ITA	45	10		
OEL	EU	45	10		

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		light red to dark red
Odour		REF.STD
Odour threshold		Not available
pH		7,0000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0290 - 1,0390
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,36 %
VOC (volatile carbon) :	10,71 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation - vapours) of the mixture:	> 20 mg/l
LC50 (Inhalation - mists / powders) of the mixture:	> 5 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

RESORCINOL

LD50 (Oral)	301 mg/kg rat
LD50 (Dermal)	3360 mg/kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

SECTION 11. Toxicological information ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin
May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-Amino-6-chloro-4-nitrophenol
RESORCINOL

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

RESORCINOL

LC50 - for Fish	29,5 mg/l/96h
EC50 - for Crustacea	1 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea	0,32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna

SECTION 12. Ecological information ... / >>

Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

RESORCINOL

Solubility in water	1400 mg/l
Rapidly degradable	

2-Amino-6-chloro-4-nitrophenol

Solubility in water	a 25°C mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water	> 1000 mg/l

cineole

Rapidly degradable	

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l
Degradability: information not available	

ETHANOL

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2,68 mg/l
Rapidly degradable	

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Solubility in water	> a 20°C mg/l
Rapidly degradable	

12.3. Bioaccumulative potential

SECTION 12. Ecological information ... / >>

RESORCINOL
Partition coefficient: n-octanol/water 0,85 Log Pow 25°

2-Amino-6-chloro-4-nitrophenol
Partition coefficient: n-octanol/water 1,8 a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IATA: FLAMMABLE LIQUID, CORROSIVE, N.O.S.

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level

SECTION 16. Other information ... / >>

- PNEC: Predicted no effect concentration- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
12 / 14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60111**
Product name	**TONO SU TONO 6,14**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**uso professionale**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 4-AMINOPHENOL 2-Amino-6-chloro-4-nitrophenol 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one RESORCINOL 2-METHYL-p-PHENYLENEDIAMINE SULFATE May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
RESORCINOL
CAS *108-46-3* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 3 H412**
EC *203-585-2*
INDEX *604-010-00-1*
Reg. no. *01-2119480136-40*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
2-Amino-6-chloro-4-nitrophenol
CAS *6358-09-4* 0 ≤ x < 0,5 **Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *228-762-1*
INDEX
4-AMINOPHENOL
CAS *123-30-8* 0 ≤ x < 0,25 **Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC *204-616-2*
INDEX *612-128-00-X*
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT

SECTION 5. Firefighting measures ... / >>

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

RESORCINOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLEP	ITA	45	10		
OEL	EU	45	10		

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		light red to dark red
Odour		REF.STD
Odour threshold		Not available
pH		7,0000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0255 - 1,0355
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,36 %
VOC (volatile carbon) :	10,71 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

RESORCINOL

LD50 (Oral)	301 mg/kg rat
LD50 (Dermal)	3360 mg/kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-AMINOPHENOL

LD50 (Oral)	671 mg/kg rat
LD50 (Dermal)	> 5000 mg/kg rat
LC50 (Inhalation)	> 3,4 mg/l rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

SECTION 11. Toxicological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
4-AMINOPHENOL
2-Amino-6-chloro-4-nitrophenol
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
RESORCINOL
2-METHYL-p-PHENYLENEDIAMINE SULFATE

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

RESORCINOL

LC50 - for Fish	29,5 mg/l/96h
EC50 - for Crustacea	1 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea	0,32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

SECTION 12. Ecological information ... / >>

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

4-AMINOPHENOL

LC50 - for Fish	0,82 mg/l/96h
EC50 - for Crustacea	0,182 mg/l/48h
EC50 - for Algae / Aquatic Plants	0,062 mg/l/72h

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

RESORCINOL

Solubility in water	1400 mg/l
Rapidly degradable	

2-Amino-6-chloro-4-nitrophenol

Solubility in water	a 25°C mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water	> 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

4-AMINOPHENOL

Solubility in water	> 1000 mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

SECTION 12. Ecological information ... / >>

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

RESORCINOL
Partition coefficient: n-octanol/water 0,85 Log Pow 25°

2-Amino-6-chloro-4-nitrophenol
Partition coefficient: n-octanol/water 1,8 a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

4-AMINOPHENOL
Partition coefficient: n-octanol/water -0,09 Log Kow

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

SECTION 14. Transport information ... / >>

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

SECTION 15. Regulatory information ... / >>

None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods

SECTION 16. Other information ... / >>

- IMO: International Maritime Organization- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
12 / 14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60112/3**
Product name	**TONO SU TONO 4,18 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 2-(2,4-diaminophenoxy)ethanol dihydrochloride 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 4-CHLORORESORCINOL May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
2-METHYL-p-PHENYLENEDIAMINE SULFATE

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 1 ≤ x < 2,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*

4-CHLORORESORCINOL
CAS *95-88-5* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *202-462-0*
INDEX

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX

2-(2,4-diaminophenoxy)ethanol dihydrochloride
CAS *66422-95-5* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *266-357-1*
INDEX

cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

SECTION 5. Firefighting measures ... / >>

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Not available
Colour	Not available
Odour	Not available
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available

SECTION 9. Physical and chemical properties ... / >>

Initial boiling point	Not available
Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	Not available
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	22,46 %
VOC (volatile carbon) :	11,14 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID

May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

4-CHLORORESORCINOL
4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation - vapours) of the mixture:	> 20 mg/l
LC50 (Inhalation - mists / powders) of the mixture:	> 5 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

2-(2,4-diaminophenoxy)ethanol dihydrochloride

LD50 (Oral)	1000 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-CHLORORESORCINOL

LD50 (Oral)	370 mg/kg rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

SECTION 11. Toxicological information ... / >>

ETHANOL
LD50 (Oral) > 5000 mg/kg Rat
LC50 (Inhalation) 120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral) > 5000 mg/kg Rat
LD50 (Dermal) > 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
LD50 (Oral) > 5000 mg/kg rat
LD50 (Dermal) > 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin
May produce an allergic reaction.
Contains:
cineole
2-(2,4-diaminophenoxy)ethanol dihydrochloride
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
4-CHLORORESORCINOL

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-(2,4-diaminophenoxy)ethanol dihydrochloride
EC50 - for Crustacea 7,4 mg/l/48h
EC50 - for Algae / Aquatic Plants 10,2 mg/l/72h
Chronic NOEC for Crustacea 2,5 mg/l

SECTION 12. Ecological information ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

2-(2,4-diaminophenoxy)ethanol dihydrochloride

Solubility in water	a 25°C mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water	> 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

4-CHLORORESORCINOL

Solubility in water	> 100000 mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

ETHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

SECTION 12. Ecological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

2-(2,4-diaminophenoxy)ethanol dihydrochloride
Partition coefficient: n-octanol/water 0,51

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3 - 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level

SECTION 16. Other information ... / >>

- PNEC: Predicted no effect concentration- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60113**
Product name **TONO SU TONO 6.18**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 4-CHLORORESORCINOL 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
2-METHYL-p-PHENYLENEDIAMINE SULFATE

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 1 ≤ x < 2,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
4-CHLORORESORCINOL
CAS *95-88-5* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *202-462-0*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.

SECTION 8. Exposure controls/personal protection ... / >>

TLV-ACGIH ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		light red to dark red
Odour		REF.STD
Odour threshold		Not available
pH		7,0000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0270 - 1,0370
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,56 %
VOC (volatile carbon) :	10,79 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

4-CHLORORESORCINOL
4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation - vapours) of the mixture:	> 20 mg/l
LC50 (Inhalation - mists / powders) of the mixture:	> 5 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-CHLORORESORCINOL

LD50 (Oral)	370 mg/kg rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

SECTION 11. Toxicological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral) > 5000 mg/kg Rat
LD50 (Dermal) > 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
LD50 (Oral) > 5000 mg/kg rat
LD50 (Dermal) > 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin
May produce an allergic reaction.
Contains:
cineole
4-CHLORORESORCINOL
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish 1,08 mg/l/96h
Chronic NOEC for Crustacea 0,63 mg/l 21d Daphnia magna

ETHANOLAMINE
LC50 - for Fish 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants 2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish 1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea 0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information ... / >>

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water > 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 20°C mg/l

4-CHLORORESORCINOL
Solubility in water > 100000 mg/l

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

SECTION 12. Ecological information ... / >>

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4

SECTION 16. Other information ... / >>

Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament

SECTION 16. Other information ... / >>

7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60114**
Product name **TONO SU TONO 8,18**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professional**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 2-METHYL-p-PHENYLENEDIAMINE SULFATE May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		light yellow to dark yellow
Odour		REF.STD
Odour threshold		Not available
pH		6,9000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0255 - 1,0355
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,36 %
VOC (volatile carbon) :	10,71 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

SECTION 11. Toxicological information ... / >>

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-METHYL-p-PHENYLENEDIAMINE SULFATE

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE	
LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna
ETHANOLAMINE	
LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate
Alcohols, C12-14	
LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l
ETHANOL	
LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

SECTION 12. Ecological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water > 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 20°C mg/l

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

SECTION 12. Ecological information ... / >>

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

SECTION 14. Transport information ... / >>

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3	Packaging instructions: 365 Packaging instructions: 354

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.

SECTION 16. Other information ... / >>

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

SECTION 16. Other information ... / >>

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60115/3**
Product name	**TONO SU TONO 9,22 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent

SECTION 6. Accidental release measures ... / >>

any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		clear liquid
Colour		YELLOWISH
Odour		REF.STD
Odour threshold		Not available
pH		7,0000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		1,0310 - 1,0410
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,21 %
VOC (volatile carbon) :	10,65 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

SECTION 11. Toxicological information ... / >>

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

SECTION 12. Ecological information ... / >>

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006

SECTION 16. Other information ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60116**
Product name	**TONO SU TONO 5,3**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**uso professionale**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 4-AMINOPHENOL 2-Amino-6-chloro-4-nitrophenol 2-METHYL-p-PHENYLENEDIAMINE SULFATE May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
2-Amino-6-chloro-4-nitrophenol
CAS *6358-09-4* 0 ≤ x < 0,5 **Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *228-762-1*
INDEX
4-AMINOPHENOL
CAS *123-30-8* 0 ≤ x < 0,25 **Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC *204-616-2*
INDEX *612-128-00-X*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

SECTION 5. Firefighting measures ... / >>

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid	
Colour		dark red	
Odour		REF.STD	
Odour threshold		Not available	
pH		7,0000 - 7,2000	
Melting point / freezing point		Not available	
Initial boiling point	>	35	°C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0270 - 1,0370
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,41 %
VOC (volatile carbon) :	10,73 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-AMINOPHENOL

LD50 (Oral)	671 mg/kg rat
LD50 (Dermal)	> 5000 mg/kg rat
LC50 (Inhalation)	> 3,4 mg/l rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

SECTION 11. Toxicological information ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides	
LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
4-AMINOPHENOL
2-Amino-6-chloro-4-nitrophenol
2-METHYL-p-PHENYLENEDIAMINE SULFATE

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE	
LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna
ETHANOLAMINE	
LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information ... / >>

Alcohols, C12-14
LC50 - for Fish 1,01 mg/l/96h
EC50 - for Crustacea > 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants 0,66 mg/l/72h
Chronic NOEC for Crustacea 0,014 mg/l

4-AMINOPHENOL
LC50 - for Fish 0,82 mg/l/96h
EC50 - for Crustacea 0,182 mg/l/48h
EC50 - for Algae / Aquatic Plants 0,062 mg/l/72h

ETHANOL
LC50 - for Fish 14200 mg/l/96h
EC50 - for Crustacea 5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea 9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants 1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LC50 - for Fish 1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea 1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants > 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish 0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea 0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants 2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
LC50 - for Fish 2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants 12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish 1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea 1 mg/l Daphnia magna

12.2. Persistence and degradability

2-Amino-6-chloro-4-nitrophenol
Solubility in water a 25°C mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water > 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 20°C mg/l

4-AMINOPHENOL
Solubility in water > 1000 mg/l

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

SECTION 12. Ecological information ... / >>

12.3. Bioaccumulative potential

2-Amino-6-chloro-4-nitrophenol
Partition coefficient: n-octanol/water 1,8 a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

4-AMINOPHENOL
Partition coefficient: n-octanol/water -0,09 Log Kow

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3 - 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation

SECTION 16. Other information ... / >>

- PEC: Predicted environmental Concentration- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60117**
Product name	**TONO SU TONO 9.3**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**uso professionale**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 4-AMINOPHENOL RESORCINOL
	May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		

SECTION 3. Composition/information on ingredients ... / >>

ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*

RESORCINOL
CAS *108-46-3* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 3 H412**
EC *203-585-2*
INDEX *604-010-00-1*
Reg. no. *01-2119480136-40*

4-AMINOPHENOL
CAS *123-30-8* 0 ≤ x < 0,25 **Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC *204-616-2*
INDEX *612-128-00-X*

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX

cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

SECTION 5. Firefighting measures ... / >>

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

RESORCINOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLEP	ITA	45	10		
OEL	EU	45	10		

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		clear liquid
Colour		light red to dark red
Odour		REF.STD
Odour threshold		Not available
pH		7,0000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		1,0238 - 1,0338
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

SECTION 9. Physical and chemical properties ... / >>

VOC (Directive 2010/75/EC) : 21,26 %
VOC (volatile carbon) : 10,67 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

SECTION 11. Toxicological information ... / >>

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

RESORCINOL

LD50 (Oral)	301 mg/kg rat
LD50 (Dermal)	3360 mg/kg rabbit

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-AMINOPHENOL

LD50 (Oral)	671 mg/kg rat
LD50 (Dermal)	> 5000 mg/kg rat
LC50 (Inhalation)	> 3,4 mg/l rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
4-AMINOPHENOL
RESORCINOL

GERM CELL MUTAGENICITY

SECTION 11. Toxicological information ... / >>

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

RESORCINOL	
LC50 - for Fish	29,5 mg/l/96h
EC50 - for Crustacea	1 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea	0,32 mg/l
ETHANOLAMINE	
LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate
Alcohols, C12-14	
LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l
4-AMINOPHENOL	
LC50 - for Fish	0,82 mg/l/96h
EC50 - for Crustacea	0,182 mg/l/48h
EC50 - for Algae / Aquatic Plants	0,062 mg/l/72h
ETHANOL	
LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	
LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

SECTION 12. Ecological information ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

RESORCINOL
Solubility in water 1400 mg/l
Rapidly degradable

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 20°C mg/l

4-AMINOPHENOL
Solubility in water > 1000 mg/l

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

RESORCINOL
Partition coefficient: n-octanol/water 0,85 Log Pow 25°

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

4-AMINOPHENOL
Partition coefficient: n-octanol/water -0,09 Log Kow

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

SECTION 12. Ecological information ... / >>

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

SECTION 14. Transport information ... / >>

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.

SECTION 16. Other information ... / >>

H341	Suspected of causing genetic defects.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

SECTION 16. Other information ... / >>

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
12 / 14.

Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60118**
Product name **TONO SU TONO 8,23**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

SECTION 2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H411 Toxic to aquatic life with long lasting effects.
EUH208 Contains: cineole
2-METHYL-p-PHENYLENEDIAMINE SULFATE
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
May produce an allergic reaction.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P280 Wear protective gloves/ protective clothing / eye protection / face protection.
P310 Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	10 ≤ x < 12	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
L-Alanine, N-coco acyl derivs., sodium salts		
CAS 90170-45-9	1 ≤ x < 3	**Eye Irrit. 2 H319**
EC 290-478-9		
INDEX		
Betaines, coco alkyldimethyl		
CAS 66455-29-6	1 ≤ x < 3	**Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Chronic 3 H412**
EC		
INDEX		
Reg. no. 01-2119529251-48-0012		

SECTION 3. Composition/information on ingredients ... / >>

ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Classification note according to Annex VI to the CLP Regulation: B**
EC *231-633-2*
INDEX *015-011-00-6*

2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX

RESORCINOL
CAS *108-46-3* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 3 H412**
EC *203-585-2*
INDEX *604-010-00-1*
Reg. no. *01-2119480136-40*

4-AMINOPHENOL
CAS *123-30-8* 0 ≤ x < 0,25 **Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC *204-616-2*
INDEX *612-128-00-X*

cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent

SECTION 5. Firefighting measures ... / >>

explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2018

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

RESORCINOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLEP	ITA	45	10		
OEL	EU	45	10		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	from liquid to gel

SECTION 9. Physical and chemical properties ... / >>

Colour		fron light red to dark red
Odour		STD. REF.
Odour threshold		Not available
pH		6,40 - 7,40
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		1,0185 - 1,0285
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,15 %
VOC (volatile carbon) :	10,63 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL
At high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

SECTION 10. Stability and reactivity ... / >>

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

RESORCINOL

LD50 (Oral)	301 mg/kg rat
LD50 (Dermal)	3360 mg/kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-AMINOPHENOL

LD50 (Oral)	671 mg/kg rat
LD50 (Dermal)	> 5000 mg/kg rat
LC50 (Inhalation)	> 3,4 mg/l rat

SECTION 11. Toxicological information ... / >>

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
2-METHYL-p-PHENYLENEDIAMINE SULFATE
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

RESORCINOL

LC50 - for Fish	29,5 mg/l/96h
EC50 - for Crustacea	1 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea	0,32 mg/l

SECTION 12. Ecological information ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
EC50 - for Crustacea	1,19 mg/l/48h
Chronic NOEC for Crustacea	0,63 mg/l

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

4-AMINOPHENOL

LC50 - for Fish	0,82 mg/l/96h
EC50 - for Crustacea	0,182 mg/l/48h
EC50 - for Algae / Aquatic Plants	0,062 mg/l/72h

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

RESORCINOL

Solubility in water	1400 mg/l

Rapidly degradable

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	1,3 mg/l 20°C

4-AMINOPHENOL

Solubility in water	> 1000 mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

SECTION 12. Ecological information ... / >>

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > 200000 mg/l a 20°C
Rapidly degradable

12.3. Bioaccumulative potential

RESORCINOL
Partition coefficient: n-octanol/water 0,85 Log Pow 25°

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

4-AMINOPHENOL
Partition coefficient: n-octanol/water -0,09 Log Kow

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation

SECTION 16. Other information ... / >>

- PEC: Predicted environmental Concentration- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 08 / 09 / 10 / 11 / 12 / 16.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60119**
Product name **TONO SU TONO 7,32**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent

SECTION 6. Accidental release measures ... / >>

any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		Not available
Colour		Not available
Odour		Not available
Odour threshold		Not available
pH		Not available
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		Not available
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,09 %
VOC (volatile carbon) :	10,60 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

SECTION 11. Toxicological information ... / >>

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

SECTION 12. Ecological information ... / >>

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006

SECTION 16. Other information ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60120**
Product name	**TONO SU TONO 9.32**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**uso professionale**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 2-METHYL-p-PHENYLENEDIAMINE SULFATE 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P370+P378	In case of fire: use carbon dioxide, foam, chemical powder to extinguish.

Contains: D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
PHOSPHORIC ACID
ETHANOLAMINE

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX
RESORCINOL
CAS *108-46-3* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 3 H412**
EC *203-585-2*
INDEX *604-010-00-1*
Reg. no. *01-2119480136-40*

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of

contaminated water used for extinction and the remains of the fire according to applicable regulations.SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

RESORCINOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLEP	ITA	45	10		
OEL	EU	45	10		

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		clear liquid
Colour		light red to dark red
Odour		REF.STD
Odour threshold		Not available
pH		7,0000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available

SECTION 9. Physical and chemical properties ... / >>

Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0238 - 1,0338
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,36 %
VOC (volatile carbon) :	10,71 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

RESORCINOL

LD50 (Oral)	301 mg/kg rat
LD50 (Dermal)	3360 mg/kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

SECTION 11. Toxicological information ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
2-METHYL-p-PHENYLENEDIAMINE SULFATE
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

RESORCINOL

LC50 - for Fish	29,5 mg/l/96h
EC50 - for Crustacea	1 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea	0,32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information ... / >>

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

RESORCINOL

Solubility in water	1400 mg/l
Rapidly degradable	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water	> 1000 mg/l

cineole

Rapidly degradable	

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l
Degradability: information not available	

ETHANOL

Solubility in water	1000 - 10000 mg/l
Rapidly degradable	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2,68 mg/l
Rapidly degradable	

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Solubility in water	> a 20°C mg/l
Rapidly degradable	

12.3. Bioaccumulative potential

RESORCINOL

Partition coefficient: n-octanol/water	0,85 Log Pow 25°

SECTION 12. Ecological information ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4

SECTION 16. Other information ... / >>

Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament

SECTION 16. Other information ... / >>

7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
12 / 14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60121**
Product name **TONO SU TONO 5.34**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.	
H314	Causes severe skin burns and eye damage.	
H411	Toxic to aquatic life with long lasting effects.	
EUH208	Contains:	cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 2-Amino-6-chloro-4-nitrophenol 2-METHYL-p-PHENYLENEDIAMINE SULFATE RESORCINOL 4-AMINOPHENOL
	May produce an allergic reaction.	

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*

4-AMINOPHENOL
CAS *123-30-8* 0,5 ≤ x < 0,7 **Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC *204-616-2*
INDEX *612-128-00-X*

RESORCINOL
CAS *108-46-3* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 3 H412**
EC *203-585-2*
INDEX *604-010-00-1*
Reg. no. *01-2119480136-40*

2-Amino-6-chloro-4-nitrophenol
CAS *6358-09-4* 0 ≤ x < 0,5 **Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *228-762-1*
INDEX

2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX

cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT

SECTION 5. Firefighting measures ... / >>

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

RESORCINOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLEP	ITA	45	10		
OEL	EU	45	10		

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid	
Colour		dark red	
Odour		REF.STD	
Odour threshold		Not available	
pH		7,0000 - 7,2000	
Melting point / freezing point		Not available	
Initial boiling point	>	35	°C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0270 - 1,0370
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,66 %
VOC (volatile carbon) :	10,82 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

RESORCINOL

LD50 (Oral)	301 mg/kg rat
LD50 (Dermal)	3360 mg/kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-AMINOPHENOL

LD50 (Oral)	671 mg/kg rat
LD50 (Dermal)	> 5000 mg/kg rat
LC50 (Inhalation)	> 3,4 mg/l rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

SECTION 11. Toxicological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral) > 5000 mg/kg Rat
LD50 (Dermal) > 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
LD50 (Oral) > 5000 mg/kg rat
LD50 (Dermal) > 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-Amino-6-chloro-4-nitrophenol
2-METHYL-p-PHENYLENEDIAMINE SULFATE
RESORCINOL
4-AMINOPHENOL

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

RESORCINOL
LC50 - for Fish 29,5 mg/l/96h
EC50 - for Crustacea 1 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea 0,32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish 1,08 mg/l/96h
Chronic NOEC for Crustacea 0,63 mg/l 21d Daphnia magna

SECTION 12. Ecological information ... / >>

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

4-AMINOPHENOL

LC50 - for Fish	0,82 mg/l/96h
EC50 - for Crustacea	0,182 mg/l/48h
EC50 - for Algae / Aquatic Plants	0,062 mg/l/72h

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

RESORCINOL

Solubility in water	1400 mg/l
Rapidly degradable	

2-Amino-6-chloro-4-nitrophenol

Solubility in water	a 25°C mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water	> 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

4-AMINOPHENOL

Solubility in water	> 1000 mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

SECTION 12. Ecological information ... / >>

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

RESORCINOL
Partition coefficient: n-octanol/water 0,85 Log Pow 25°

2-Amino-6-chloro-4-nitrophenol
Partition coefficient: n-octanol/water 1,8 a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

4-AMINOPHENOL
Partition coefficient: n-octanol/water -0,09 Log Kow

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

SECTION 14. Transport information ... / >>

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3	Packaging instructions: 365 Packaging instructions: 354

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

SECTION 15. Regulatory information ... / >>

None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods

SECTION 16. Other information ... / >>

- IMO: International Maritime Organization- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
12 / 14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60122**
Product name	**TONO SU TONO 7,35**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**uso professionale**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent

SECTION 6. Accidental release measures ... / >>

any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		Not available
Colour		Not available
Odour		Not available
Odour threshold		Not available
pH		Not available
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		Not available
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,09 %
VOC (volatile carbon) :	10,60 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

SECTION 11. Toxicological information ... / >>

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

SECTION 12. Ecological information ... / >>

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3 - 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006

SECTION 16. Other information ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60123**
Product name	**TONO SU TONO 9,73**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**uso professionale**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 4-AMINOPHENOL 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 4-CHLORORESORCINOL
	May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		

SECTION 3. Composition/information on ingredients ... / >>

ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
4-CHLORORESORCINOL
CAS *95-88-5* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *202-462-0*
INDEX
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
4-AMINOPHENOL
CAS *123-30-8* 0 ≤ x < 0,25 **Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC *204-616-2*
INDEX *612-128-00-X*
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATIONUse jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.

SECTION 8. Exposure controls/personal protection ... / >>

TLV-ACGIH ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		light yellow to dark yellow
Odour		REF.STD
Odour threshold		Not available
pH		6,9000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		1,0255 - 1,0355
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,26 %
VOC (volatile carbon) :	10,67 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

4-CHLORORESORCINOL
4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

SECTION 11. Toxicological information ... / >>

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-CHLORORESORCINOL

LD50 (Oral)	370 mg/kg rat

4-AMINOPHENOL

LD50 (Oral)	671 mg/kg rat
LD50 (Dermal)	> 5000 mg/kg rat
LC50 (Inhalation)	> 3,4 mg/l rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole

SECTION 11. Toxicological information ... / >>

4-AMINOPHENOL
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
4-CHLORORESORCINOL

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

4-AMINOPHENOL

LC50 - for Fish	0,82 mg/l/96h
EC50 - for Crustacea	0,182 mg/l/48h
EC50 - for Algae / Aquatic Plants	0,062 mg/l/72h

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

SECTION 12. Ecological information ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 20°C mg/l

4-CHLORORESORCINOL
Solubility in water > 100000 mg/l

4-AMINOPHENOL
Solubility in water > 1000 mg/l

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

4-AMINOPHENOL
Partition coefficient: n-octanol/water -0,09 Log Kow

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID:	FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG:	FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA:	FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3	Packaging instructions: 365 Packaging instructions: 354

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H341	Suspected of causing genetic defects.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

SECTION 16. Other information ... / >>

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

SECTION 16. Other information ... / >>

The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60124/3**
Product name	**TONO SU TONO 8,44 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 5-AMINO-O-CRESOL 2-METHYL-p-PHENYLENEDIAMINE SULFATE 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 6-hydroxy-3,4-dimethyl-2-pyridone 1-Hydroxyethyl-4,5-diaminopyrazole sulfate May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
1-Hydroxyethyl-4,5-diaminopyrazole sulfate
CAS *155601-30-2* 0,6 ≤ x < 1 **Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *429-300-3*
INDEX *613-249-00-0*
Reg. no. *01-0000017559-58*
6-hydroxy-3,4-dimethyl-2-pyridone
CAS *84540-47-6* 0 ≤ x < 0,5 **Eye Irrit. 2 H319, Skin Sens. 1 H317**
EC *283-141-2*
INDEX
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
5-AMINO-O-CRESOL
CAS *2835-95-2* 0 ≤ x < 0,25 **Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC *220-618-6*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent

SECTION 5. Firefighting measures ... / >>

explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		dark - orange
Odour		REF.STD
Odour threshold		Not available
pH		6,80 - 7,20
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available

SECTION 9. Physical and chemical properties ... / >>

Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0350 - 1,0450
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,56 %
VOC (volatile carbon) :	10,79 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

5-AMINO-O-CRESOL

LD50 (Oral)	3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

6-hydroxy-3,4-dimethyl-2-pyridone

LD50 (Oral)	2500 mg/kg Rat

1-Hydroxyethyl-4,5-diaminopyrazole sulfate

LD50 (Oral)	> 2000 mg/kg Rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

SECTION 11. Toxicological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
5-AMINO-O-CRESOL
2-METHYL-p-PHENYLENEDIAMINE SULFATE
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
6-hydroxy-3,4-dimethyl-2-pyridone
1-Hydroxyethyl-4,5-diaminopyrazole sulfate

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna

SECTION 12. Ecological information ... / >>

Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

1-Hydroxyethyl-4,5-diaminopyrazole sulfate

LC50 - for Fish	> 86,23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea	11,12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	5,33 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish	> 86,23 mg/l Danio rerio
Chronic NOEC for Crustacea	< 6,14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants	1,8 mg/l Pseudokirchnerella subcapitata (growth rate)

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

5-AMINO-O-CRESOL

Solubility in water	a 20°C mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water	> 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
NOT rapidly degradable

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

ETHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2,68 mg/l

Rapidly degradable

SECTION 12. Ecological information ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water -0,53 Log Kow

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

6-hydroxy-3,4-dimethyl-2-pyridone
Partition coefficient: n-octanol/water 2,4 Log Pow

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3 - 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level

SECTION 16. Other information ... / >>

- PNEC: Predicted no effect concentration- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60125**
Product name **TONO SU TONO 9,4**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 2-Amino-6-chloro-4-nitrophenol 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		

SECTION 3. Composition/information on ingredients ... / >>

Reg. no. *01-2119486455-28*
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
2-Amino-6-chloro-4-nitrophenol
CAS *6358-09-4* 0 ≤ x < 0,5 **Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *228-762-1*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		Not available
Colour		Not available
Odour		Not available
Odour threshold		Not available
pH		Not available
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		Not available
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,31 %
VOC (volatile carbon) :	10,69 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

SECTION 11. Toxicological information ... / >>

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
2-Amino-6-chloro-4-nitrophenol
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

SECTION 11. Toxicological information ... / >>

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

2-Amino-6-chloro-4-nitrophenol

Solubility in water	a 25°C mg/l

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

SECTION 12. Ecological information ... / >>

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

2-Amino-6-chloro-4-nitrophenol
Partition coefficient: n-octanol/water 1,8 a 20°C

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3 - 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006

SECTION 16. Other information ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 03 / 09 / 11 / 12 / 14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60126/3**
Product name	**TONO SU TONO 6,44 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 2-METHYL-p-PHENYLENEDIAMINE SULFATE 4-AMINOPHENOL 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 5-AMINO-O-CRESOL 2-Amino-6-chloro-4-nitrophenol 4-[(2-hydroxyethyl)amino]-3-nitrophenol 6-hydroxy-3,4-dimethyl-2-pyridone 1-Hydroxyethyl-4,5-diaminopyrazole sulfate May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		

SECTION 3. Composition/information on ingredients ... / >>

ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
CAS *155601-30-2* 0 ≤ x < 0,5 **Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *429-300-3*
INDEX *613-249-00-0*
Reg. no. *01-0000017559-58*

2-Amino-6-chloro-4-nitrophenol
CAS *6358-09-4* 0 ≤ x < 0,5 **Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *228-762-1*
INDEX

6-hydroxy-3,4-dimethyl-2-pyridone
CAS *84540-47-6* 0 ≤ x < 0,5 **Eye Irrit. 2 H319, Skin Sens. 1 H317**
EC *283-141-2*
INDEX

4-[(2-hydroxyethyl)amino]-3-nitrophenol
CAS *65235-31-6* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *265-648-0*
INDEX

5-AMINO-O-CRESOL
CAS *2835-95-2* 0 ≤ x < 0,25 **Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC *220-618-6*
INDEX

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX

4-AMINOPHENOL
CAS *123-30-8* 0 ≤ x < 0,25 **Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC *204-616-2*
INDEX *612-128-00-X*

2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*

cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops

SECTION 4. First aid measures ... / >>

breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may

SECTION 7. Handling and storage ... / >>

occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an

SECTION 8. Exposure controls/personal protection ... / >>

emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		light red to dark red
Odour		REF.STD
Odour threshold		Not available
pH		6,9000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		1,0255 - 1,0355
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,76 %
VOC (volatile carbon) :	10,86 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

SECTION 10. Stability and reactivity ... / >>

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

4-[(2-hydroxyethyl)amino]-3-nitrophenol

LD50 (Oral)	2000 mg/kg rat

5-AMINO-O-CRESOL

LD50 (Oral)	3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

SECTION 11. Toxicological information ... / >>

Alcohols, C12-14
LD50 (Oral) > 5000 mg/kg Rat
LD50 (Dermal) > 2000 mg/kg Rabbit

6-hydroxy-3,4-dimethyl-2-pyridone
LD50 (Oral) 2500 mg/kg Rat

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LD50 (Oral) > 2000 mg/kg Rat

4-AMINOPHENOL
LD50 (Oral) 671 mg/kg rat
LD50 (Dermal) > 5000 mg/kg rat
LC50 (Inhalation) > 3,4 mg/l rat

PHOSPHORIC ACID
LD50 (Oral) 1530 mg/kg Rat
LD50 (Dermal) 2740 mg/kg Rabbit
LC50 (Inhalation) > 0,85 mg/l/1h Rat

ETHANOL
LD50 (Oral) > 5000 mg/kg Rat
LC50 (Inhalation) 120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral) > 5000 mg/kg Rat
LD50 (Dermal) > 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
LD50 (Oral) > 5000 mg/kg rat
LD50 (Dermal) > 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
2-METHYL-p-PHENYLENEDIAMINE SULFATE
4-AMINOPHENOL
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
5-AMINO-O-CRESOL
2-Amino-6-chloro-4-nitrophenol
4-[(2-hydroxyethyl)amino]-3-nitrophenol
6-hydroxy-3,4-dimethyl-2-pyridone
1-Hydroxyethyl-4,5-diaminopyrazole sulfate

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

1-Hydroxyethyl-4,5-diaminopyrazole sulfate

LC50 - for Fish	> 86,23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea	11,12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	5,33 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish	> 86,23 mg/l Danio rerio
Chronic NOEC for Crustacea	< 6,14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants	1,8 mg/l Pseudokirchnerella subcapitata (growth rate)

4-AMINOPHENOL

LC50 - for Fish	0,82 mg/l/96h
EC50 - for Crustacea	0,182 mg/l/48h
EC50 - for Algae / Aquatic Plants	0,062 mg/l/72h

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

SECTION 12. Ecological information ... / >>

2-Amino-6-chloro-4-nitrophenol
Solubility in water a 25°C mg/l

5-AMINO-O-CRESOL
Solubility in water a 20°C mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water > 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 20°C mg/l

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
NOT rapidly degradable

4-AMINOPHENOL
Solubility in water > 1000 mg/l

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

2-Amino-6-chloro-4-nitrophenol
Partition coefficient: n-octanol/water 1,8 a 20°C

4-[(2-hydroxyethyl)amino]-3-nitrophenol
Partition coefficient: n-octanol/water 0,6 Log Kow

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water -0,53 Log Kow

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

6-hydroxy-3,4-dimethyl-2-pyridone
Partition coefficient: n-octanol/water 2,4 Log Pow

SECTION 12. Ecological information ... / >>

4-AMINOPHENOL
Partition coefficient: n-octanol/water -0,09 Log Kow

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3

SECTION 16. Other information ... / >>

Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament

SECTION 16. Other information ... / >>

5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60127/3**
Product name	**TONO SU TONO 4,45 SL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.	
H314	Causes severe skin burns and eye damage.	
H411	Toxic to aquatic life with long lasting effects.	
EUH208	Contains:	cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 2-Amino-6-chloro-4-nitrophenol 6-hydroxy-3,4-dimethyl-2-pyridone 1-Hydroxyethyl-4,5-diaminopyrazole sulfate 2-METHYL-p-PHENYLENEDIAMINE SULFATE 4-AMINOPHENOL
	May produce an allergic reaction.	

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		

SECTION 3. Composition/information on ingredients ... / >>

Reg. no. *01-2119486455-28*
Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
2-aminopyridin-3-ol
CAS *16867-03-1* 1 ≤ x < 3 **Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335**
EC *240-886-8*
INDEX
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0,6 ≤ x < 1 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
4-AMINOPHENOL
CAS *123-30-8* 0,6 ≤ x < 1 **Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC *204-616-2*
INDEX *612-128-00-X*
6-hydroxy-3,4-dimethyl-2-pyridone
CAS *84540-47-6* 0,5 ≤ x < 0,7 **Eye Irrit. 2 H319, Skin Sens. 1 H317**
EC *283-141-2*
INDEX
1-Hydroxyethyl-4,5-diaminopyrazole sulfate
CAS *155601-30-2* 0,5 ≤ x < 0,7 **Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *429-300-3*
INDEX *613-249-00-0*
Reg. no. *01-0000017559-58*
2-Amino-6-chloro-4-nitrophenol
CAS *6358-09-4* 0 ≤ x < 0,5 **Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *228-762-1*
INDEX
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

SECTION 7. Handling and storage ... / >>

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		light red to dark red
Odour		REF.STD
Odour threshold		Not available
pH		6,9000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0328 - 1,0428
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,66 %
VOC (volatile carbon) :	10,82 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

2-aminopyridin-3-ol

LD50 (Oral)	500 mg/kg Rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

6-hydroxy-3,4-dimethyl-2-pyridone

LD50 (Oral)	2500 mg/kg Rat

1-Hydroxyethyl-4,5-diaminopyrazole sulfate

LD50 (Oral)	> 2000 mg/kg Rat

4-AMINOPHENOL

LD50 (Oral)	671 mg/kg rat
LD50 (Dermal)	> 5000 mg/kg rat
LC50 (Inhalation)	> 3,4 mg/l rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

SECTION 11. Toxicological information ... / >>

ETHANOL
LD50 (Oral) > 5000 mg/kg Rat
LC50 (Inhalation) 120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral) > 5000 mg/kg Rat
LD50 (Dermal) > 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
LD50 (Oral) > 5000 mg/kg rat
LD50 (Dermal) > 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-Amino-6-chloro-4-nitrophenol
6-hydroxy-3,4-dimethyl-2-pyridone
1-Hydroxyethyl-4,5-diaminopyrazole sulfate
2-METHYL-p-PHENYLENEDIAMINE SULFATE
4-AMINOPHENOL

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish 1,08 mg/l/96h
Chronic NOEC for Crustacea 0,63 mg/l 21d Daphnia magna

SECTION 12. Ecological information ... / >>

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

1-Hydroxyethyl-4,5-diaminopyrazole sulfate

LC50 - for Fish	> 86,23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea	11,12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	5,33 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish	> 86,23 mg/l Danio rerio
Chronic NOEC for Crustacea	< 6,14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants	1,8 mg/l Pseudokirchnerella subcapitata (growth rate)

4-AMINOPHENOL

LC50 - for Fish	0,82 mg/l/96h
EC50 - for Crustacea	0,182 mg/l/48h
EC50 - for Algae / Aquatic Plants	0,062 mg/l/72h

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

2-Amino-6-chloro-4-nitrophenol

Solubility in water	a 25°C mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water	> 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
NOT rapidly degradable

SECTION 12. Ecological information ... / >>

4-AMINOPHENOL
Solubility in water > 1000 mg/l

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

2-Amino-6-chloro-4-nitrophenol
Partition coefficient: n-octanol/water 1,8 a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

6-hydroxy-3,4-dimethyl-2-pyridone
Partition coefficient: n-octanol/water 2,4 Log Pow

4-AMINOPHENOL
Partition coefficient: n-octanol/water -0,09 Log Kow

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product
Point 3 - 40

SECTION 15. Regulatory information ... / >>

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)

SECTION 16. Other information ... / >>

- CLP: EC Regulation 1272/2008- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60128/3**
Product name **TONO SU TONO 3.51 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

SECTION 2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
EUH208 Contains: cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
4-CHLORORESORCINOL
5-AMINO-O-CRESOL
May produce an allergic reaction.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P280 Wear protective gloves/ protective clothing / eye protection / face protection.
P310 Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
2-METHYL-p-PHENYLENEDIAMINE SULFATE
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	10 ≤ x < 12	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
L-Alanine, N-coco acyl derivs., sodium salts		
CAS 90170-45-9	1 ≤ x < 3	**Eye Irrit. 2 H319**
EC 290-478-9		
INDEX		

SECTION 3. Composition/information on ingredients ... / >>

ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*

2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 1 ≤ x < 2,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*

Betaines, coco alkyldimethyl
CAS *66455-29-6* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Chronic 3 H412**
EC
INDEX
Reg. no. *01-2119529251-48-0012*

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Classification note according to Annex VI to the CLP Regulation: B**
EC *231-633-2*
INDEX *015-011-00-6*

5-AMINO-O-CRESOL
CAS *2835-95-2* 0,6 ≤ x < 1 **Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC *220-618-6*
INDEX

4-CHLORORESORCINOL
CAS *95-88-5* 0,5 ≤ x < 0,7 **Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *202-462-0*
INDEX

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX

cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

SECTION 7. Handling and storage ... / >>

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2018

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	TRANSPARENT LIQUID
Colour	from violet to dark violet
Odour	REF.STD
Odour threshold	Not available
pH	6,80 - 7,20
Melting point / freezing point	Not available

SECTION 9. Physical and chemical properties ... / >>

Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		1,0303 - 1,0403
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	22,15 %
VOC (volatile carbon) :	11,02 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL
At high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

SECTION 10. Stability and reactivity ... / >>

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

4-CHLORORESORCINOL
4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation - mists / powders) of the mixture:	> 5 mg/l
LC50 (Inhalation - vapours) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

5-AMINO-O-CRESOL

LD50 (Oral)	3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-CHLORORESORCINOL

LD50 (Oral)	370 mg/kg rat

SECTION 11. Toxicological information ... / >>

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin
May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
4-CHLORORESORCINOL
5-AMINO-O-CRESOL

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

SECTION 12. Ecological information ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
EC50 - for Crustacea	1,19 mg/l/48h
Chronic NOEC for Crustacea	0,63 mg/l

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

4-CHLORORESORCINOL

EC50 - for Crustacea	1,28 mg/l/48h
Chronic NOEC for Algae / Aquatic Plants	3 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

5-AMINO-O-CRESOL
Solubility in water 0,004112 mg/l a 20°C

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 1,3 mg/l 20°C

4-CHLORORESORCINOL
Solubility in water > 100000 mg/l
NOT rapidly degradable

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

SECTION 12. Ecological information ... / >>

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > 200000 mg/l a 20°C
Rapidly degradable

12.3. Bioaccumulative potential

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water -0,53 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level

SECTION 16. Other information ... / >>

- PNEC: Predicted no effect concentration- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
03 / 09 / 10 / 12.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60129/3**
Product name **TONO SU TONO 8,04**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 2-Amino-6-chloro-4-nitrophenol 2-METHYL-p-PHENYLENEDIAMINE SULFATE 4-AMINOPHENOL May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P370+P378	In case of fire: use carbon dioxide, foam, chemical powder to extinguish.

Contains: D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
PHOSPHORIC ACID
ETHANOLAMINE

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
4-AMINOPHENOL
CAS *123-30-8* 0,25 ≤ x < 0,5 **Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC *204-616-2*
INDEX *612-128-00-X*
2-Amino-6-chloro-4-nitrophenol
CAS *6358-09-4* 0 ≤ x < 0,5 **Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *228-762-1*
INDEX
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATIONUse jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.

SECTION 8. Exposure controls/personal protection ... / >>

TLV-ACGIH ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		dark red
Odour		REF.STD
Odour threshold		Not available
pH		7,0000 - 7,2000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0270 - 1,0370
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,36 %
VOC (volatile carbon) :	10,71 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-AMINOPHENOL

LD50 (Oral)	671 mg/kg rat
LD50 (Dermal)	> 5000 mg/kg rat
LC50 (Inhalation)	> 3,4 mg/l rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

SECTION 11. Toxicological information ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-Amino-6-chloro-4-nitrophenol
2-METHYL-p-PHENYLENEDIAMINE SULFATE
4-AMINOPHENOL

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information ... / >>

Alcohols, C12-14
LC50 - for Fish 1,01 mg/l/96h
EC50 - for Crustacea > 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants 0,66 mg/l/72h
Chronic NOEC for Crustacea 0,014 mg/l

4-AMINOPHENOL
LC50 - for Fish 0,82 mg/l/96h
EC50 - for Crustacea 0,182 mg/l/48h
EC50 - for Algae / Aquatic Plants 0,062 mg/l/72h

ETHANOL
LC50 - for Fish 14200 mg/l/96h
EC50 - for Crustacea 5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea 9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants 1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LC50 - for Fish 1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea 1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants > 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish 0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea 0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants 2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
LC50 - for Fish 2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants 12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish 1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea 1 mg/l Daphnia magna

12.2. Persistence and degradability

2-Amino-6-chloro-4-nitrophenol
Solubility in water a 25°C mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water > 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 20°C mg/l

4-AMINOPHENOL
Solubility in water > 1000 mg/l

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

SECTION 12. Ecological information ... / >>

12.3. Bioaccumulative potential

2-Amino-6-chloro-4-nitrophenol
Partition coefficient: n-octanol/water 1,8 a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

4-AMINOPHENOL
Partition coefficient: n-octanol/water -0,09 Log Kow

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3 - 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation

SECTION 16. Other information ... / >>

- PEC: Predicted environmental Concentration- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60130/3**
Product name **TONO SU TONO 5.65 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

SECTION 2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
EUH208 Contains: cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
5-AMINO-O-CRESOL
May produce an allergic reaction.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P280 Wear protective gloves/ protective clothing / eye protection / face protection.
P310 Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
1-Hydroxyethyl-4,5-diaminopyrazole sulfate
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	10 ≤ x < 12	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
L-Alanine, N-coco acyl derivs., sodium salts		
CAS 90170-45-9	1 ≤ x < 3	**Eye Irrit. 2 H319**
EC 290-478-9		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		

SECTION 3. Composition/information on ingredients ... / >>

Reg. no. *01-2119486455-28*
Betaines, coco alkyldimethyl
CAS *66455-29-6* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Chronic 3 H412**
EC
INDEX
Reg. no. *01-2119529251-48-0012*
1-Hydroxyethyl-4,5-diaminopyrazole sulfate
CAS *155601-30-2* 1 ≤ x < 2,5 **Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *429-300-3*
INDEX *613-249-00-0*
Reg. no. *01-0000017559-58*
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318,**
Classification note according to Annex VI to the CLP Regulation: B
EC *231-633-2*
INDEX *015-011-00-6*
4-[(3-hydroxypropyl)amino]-3-nitrophenol
CAS *92952-81-3* 1 ≤ x < 2,5 **Skin Irrit. 2 H315, Aquatic Chronic 2 H411**
EC *406-305-9*
INDEX *609-060-00-8*
5-AMINO-O-CRESOL
CAS *2835-95-2* 0,5 ≤ x < 0,7 **Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317,**
Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC *220-618-6*
INDEX
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317,**
Aquatic Chronic 2 H411
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures ... / >>

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2018

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
Colour	dark red
Odour	REF.STD
Odour threshold	Not available
pH	7,0000 - 7,2000
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0270 - 1,0370
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,90 %
VOC (volatile carbon) :	10,92 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL
At high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

SECTION 11. Toxicological information ... / >>

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

5-AMINO-O-CRESOL

LD50 (Oral)	3600 mg/kg rat

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

1-Hydroxyethyl-4,5-diaminopyrazole sulfate

LD50 (Oral)	> 2000 mg/kg Rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin
May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
5-AMINO-O-CRESOL

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

4-[(3-hydroxypropyl)amino]-3-nitrophenol

EC50 - for Crustacea	2,8 mg/l/48h

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

1-Hydroxyethyl-4,5-diaminopyrazole sulfate

LC50 - for Fish	> 86,23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea	11,12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	5,33 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish	> 86,23 mg/l Danio rerio
Chronic NOEC for Crustacea	< 6,14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants	1,8 mg/l Pseudokirchnerella subcapitata (growth rate)

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

SECTION 12. Ecological information ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

5-AMINO-O-CRESOL
Solubility in water 0,004112 mg/l a 20°C

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 1,3 mg/l 20°C

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
NOT rapidly degradable

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > 200000 mg/l a 20°C
Rapidly degradable

12.3. Bioaccumulative potential

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water -0,53 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3	Packaging instructions: 365 Packaging instructions: 354

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

SECTION 16. Other information ... / >>

H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60131/3**
Product name	**TONO SU TONO 6.66 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 5-AMINO-O-CRESOL May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
1-Hydroxyethyl-4,5-diaminopyrazole sulfate

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
4-[(3-hydroxypropyl)amino]-3-nitrophenol		
CAS 92952-81-3	1 ≤ x < 2,5	**Skin Irrit. 2 H315, Aquatic Chronic 2 H411**
EC 406-305-9		
INDEX 609-060-00-8		

SECTION 3. Composition/information on ingredients ... / >>

ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
CAS *155601-30-2* 1 ≤ x < 2,5 **Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *429-300-3*
INDEX *613-249-00-0*
Reg. no. *01-0000017559-58*

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*

5-AMINO-O-CRESOL
CAS *2835-95-2* 0,5 ≤ x < 0,7 **Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC *220-618-6*
INDEX

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX

cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

SECTION 5. Firefighting measures ... / >>

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIREExcess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		clear liquid
Colour		from red to violet
Odour		REF.STD
Odour threshold		Not available
pH		6,80 - 7,20
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		1,0353 - 1,0453
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,61 %
VOC (volatile carbon) :	10,80 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

SECTION 11. Toxicological information ... / >>

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

5-AMINO-O-CRESOL

LD50 (Oral)	3600 mg/kg rat

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

1-Hydroxyethyl-4,5-diaminopyrazole sulfate

LD50 (Oral)	> 2000 mg/kg Rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin
May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
5-AMINO-O-CRESOL

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

4-[(3-hydroxypropyl)amino]-3-nitrophenol

EC50 - for Crustacea	2,8 mg/l/48h

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

1-Hydroxyethyl-4,5-diaminopyrazole sulfate

LC50 - for Fish	> 86,23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea	11,12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	5,33 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish	> 86,23 mg/l Danio rerio
Chronic NOEC for Crustacea	< 6,14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants	1,8 mg/l Pseudokirchnerella subcapitata (growth rate)

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

SECTION 12. Ecological information ... / >>

12.2. Persistence and degradability

5-AMINO-O-CRESOL
Solubility in water a 20°C mg/l

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 20°C mg/l

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
NOT rapidly degradable

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water -0,53 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID:	FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG:	FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA:	FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3	Packaging instructions: 365 Packaging instructions: 354

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

SECTION 16. Other information ... / >>

H412 Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60132/3**
Product name	**TONO SU TONO 7,73 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 4-AMINOPHENOL 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 4-CHLORORESORCINOL 2-METHYL-p-PHENYLENEDIAMINE SULFATE May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
4-CHLORORESORCINOL
CAS *95-88-5* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *202-462-0*
INDEX
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
4-AMINOPHENOL
CAS *123-30-8* 0 ≤ x < 0,25 **Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC *204-616-2*
INDEX *612-128-00-X*
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

SECTION 5. Firefighting measures ... / >>

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		Not available	
Colour		Not available	
Odour		Not available	
Odour threshold		Not available	
pH		Not available	
Melting point / freezing point		Not available	
Initial boiling point	>	35	°C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	Not available
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,36 %
VOC (volatile carbon) :	10,71 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

4-CHLORORESORCINOL
4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-CHLORORESORCINOL

LD50 (Oral)	370 mg/kg rat

4-AMINOPHENOL

LD50 (Oral)	671 mg/kg rat
LD50 (Dermal)	> 5000 mg/kg rat
LC50 (Inhalation)	> 3,4 mg/l rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

SECTION 11. Toxicological information ... / >>

ETHANOL
LD50 (Oral) > 5000 mg/kg Rat
LC50 (Inhalation) 120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral) > 5000 mg/kg Rat
LD50 (Dermal) > 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
LD50 (Oral) > 5000 mg/kg rat
LD50 (Dermal) > 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
4-AMINOPHENOL
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
4-CHLORORESORCINOL
2-METHYL-p-PHENYLENEDIAMINE SULFATE

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish 1,08 mg/l/96h
Chronic NOEC for Crustacea 0,63 mg/l 21d Daphnia magna

SECTION 12. Ecological information ... / >>

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

4-AMINOPHENOL

LC50 - for Fish	0,82 mg/l/96h
EC50 - for Crustacea	0,182 mg/l/48h
EC50 - for Algae / Aquatic Plants	0,062 mg/l/72h

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water > 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 20°C mg/l

4-CHLORORESORCINOL
Solubility in water > 100000 mg/l

4-AMINOPHENOL
Solubility in water > 1000 mg/l

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

SECTION 12. Ecological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

4-AMINOPHENOL
Partition coefficient: n-octanol/water -0,09 Log Kow

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3 - 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation

SECTION 16. Other information ... / >>

- PEC: Predicted environmental Concentration- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60133**
Product name	**TONO SU TONO SILVER**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**uso professionale/industriale**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent

SECTION 6. Accidental release measures ... / >>

any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		Not available
Colour		Not available
Odour		Not available
Odour threshold		Not available
pH		Not available
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		Not available
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,09 %
VOC (volatile carbon) :	10,60 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

SECTION 11. Toxicological information ... / >>

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

SECTION 12. Ecological information ... / >>

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3 - 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006

SECTION 16. Other information ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60134**
Product name **TONO SU TONO PEARL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent

SECTION 6. Accidental release measures ... / >>

any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		Not available
Colour		Not available
Odour		Not available
Odour threshold		Not available
pH		Not available
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		Not available
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,09 %
VOC (volatile carbon) :	10,60 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

SECTION 11. Toxicological information ... / >>

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

SECTION 12. Ecological information ... / >>

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006

SECTION 16. Other information ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60135**
Product name	**TONO SU TONO ROSE QUARTZ**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**uso professionale**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	12 ≤ x < 13	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent

SECTION 6. Accidental release measures ... / >>

any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		Not available
Colour		Not available
Odour		Not available
Odour threshold		Not available
pH		Not available
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		Not available
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,09 %
VOC (volatile carbon) :	10,60 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

SECTION 11. Toxicological information ... / >>

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

SECTION 12. Ecological information ... / >>

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006

SECTION 16. Other information ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60136/3**
Product name **TONO SU TONO GLOSS**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **cosmetic product not in the finished state - professional / industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

SECTION 2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H411 Toxic to aquatic life with long lasting effects.
EUH208 Contains: cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
May produce an allergic reaction.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P280 Wear protective gloves/ protective clothing / eye protection / face protection.
P310 Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	10 ≤ x < 12	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
L-Alanine, N-coco acyl derivs., sodium salts		
CAS 90170-45-9	1 ≤ x < 3	**Eye Irrit. 2 H319**
EC 290-478-9		
INDEX		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *66455-29-6* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Chronic 3 H412**
EC
INDEX
Reg. no. *01-2119529251-48-0012*
ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Classification note according to Annex VI to the CLP Regulation: B**
EC *231-633-2*
INDEX *015-011-00-6*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of

contaminated water used for extinction and the remains of the fire according to applicable regulations.SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2018

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		clear liquid
Colour		REALLY YELLOW
Odour		REF.STD
Odour threshold		Not available
pH		7,0000 - 7,4000
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		1,0168 - 1,0268
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,08 %
VOC (volatile carbon) :	10,60 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL
At high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

SECTION 11. Toxicological information ... / >>

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	1,3 mg/l 20°C

SECTION 12. Ecological information ... / >>

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > 200000 mg/l a 20°C
Rapidly degradable

12.3. Bioaccumulative potential

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006

SECTION 16. Other information ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
03 / 09 / 10 / 12.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60137/3**
Product name	**TONO SU TONO 9.21 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent

SECTION 6. Accidental release measures ... / >>

any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		Not available
Colour		Not available
Odour		Not available
Odour threshold		Not available
pH		Not available
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		Not available
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,16 %
VOC (volatile carbon) :	10,63 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

SECTION 11. Toxicological information ... / >>

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

SECTION 12. Ecological information ... / >>

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006

SECTION 16. Other information ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60138/3**
Product name	**TONO SU TONO 4,56 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 4-CHLORORESORCINOL 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 5-AMINO-O-CRESOL 4-[(2-hydroxyethyl)amino]-3-nitrophenol May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
2-METHYL-p-PHENYLENEDIAMINE SULFATE

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
ETHANOLAMINE		
CAS 141-43-5	1 ≤ x < 3	**Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC 205-483-3		
INDEX 603-030-00-8		
Reg. no. 01-2119486455-28		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *68424-94-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC *270-329-4*
INDEX
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 1 ≤ x < 2,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
4-[(2-hydroxyethyl)amino]-3-nitrophenol
CAS *65235-31-6* 0,6 ≤ x < 1 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *265-648-0*
INDEX
5-AMINO-O-CRESOL
CAS *2835-95-2* 0,25 ≤ x < 0,5 **Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC *220-618-6*
INDEX
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
4-CHLORORESORCINOL
CAS *95-88-5* 0 ≤ x < 0,5 **Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *202-462-0*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures ... / >>

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		Not available	
Colour		Not available	
Odour		Not available	
Odour threshold		Not available	
pH		Not available	
Melting point / freezing point		Not available	
Initial boiling point	>	35	°C

SECTION 9. Physical and chemical properties ... / >>

Boiling range	Not available
Flash point	32 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	Not available
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,36 %
VOC (volatile carbon) :	10,71 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

4-CHLORORESORCINOL
4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation - vapours) of the mixture:	> 20 mg/l
LC50 (Inhalation - mists / powders) of the mixture:	> 5 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

4-[(2-hydroxyethyl)amino]-3-nitrophenol

LD50 (Oral)	2000 mg/kg rat

5-AMINO-O-CRESOL

LD50 (Oral)	3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-CHLORORESORCINOL

LD50 (Oral)	370 mg/kg rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

SECTION 11. Toxicological information ... / >>

ETHANOL
LD50 (Oral) > 5000 mg/kg Rat
LC50 (Inhalation) 120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral) > 5000 mg/kg Rat
LD50 (Dermal) > 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
LD50 (Oral) > 5000 mg/kg rat
LD50 (Dermal) > 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin
May produce an allergic reaction.
Contains:
cineole
4-CHLORORESORCINOL
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
5-AMINO-O-CRESOL
4-[(2-hydroxyethyl)amino]-3-nitrophenol

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish 1,08 mg/l/96h
Chronic NOEC for Crustacea 0,63 mg/l 21d Daphnia magna

SECTION 12. Ecological information ... / >>

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

5-AMINO-O-CRESOL

Solubility in water	a 20°C mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water	> 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

4-CHLORORESORCINOL

Solubility in water	> 100000 mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

ETHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2,68 mg/l

Rapidly degradable

SECTION 12. Ecological information ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

4-[(2-hydroxyethyl)amino]-3-nitrophenol
Partition coefficient: n-octanol/water 0,6 Log Kow

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water -0,53 Log Kow

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water 0,74 Log Kow

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level

SECTION 16. Other information ... / >>

- PNEC: Predicted no effect concentration- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60140/3**
Product name **TONO SU TONO 8,33**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one 2-Amino-6-chloro-4-nitrophenol 6-hydroxy-3,4-dimethyl-2-pyridone 4-AMINOPHENOL May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		

SECTION 3. Composition/information on ingredients ... / >>

ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*

4-AMINOPHENOL
CAS *123-30-8* 0,25 ≤ x < 0,5 **Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC *204-616-2*
INDEX *612-128-00-X*

2-Amino-6-chloro-4-nitrophenol
CAS *6358-09-4* 0 ≤ x < 0,5 **Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *228-762-1*
INDEX

6-hydroxy-3,4-dimethyl-2-pyridone
CAS *84540-47-6* 0 ≤ x < 0,5 **Eye Irrit. 2 H319, Skin Sens. 1 H317**
EC *283-141-2*
INDEX

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX

cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

SECTION 5. Firefighting measures ... / >>

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		clear liquid
Colour		red
Odour		REF.STD
Odour threshold		Not available
pH		6,80 - 7,20
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		1,0324 - 1,0424
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,18 %
VOC (volatile carbon) :	10,64 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

SECTION 11. Toxicological information ... / >>

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

6-hydroxy-3,4-dimethyl-2-pyridone

LD50 (Oral)	2500 mg/kg Rat

4-AMINOPHENOL

LD50 (Oral)	671 mg/kg rat
LD50 (Dermal)	> 5000 mg/kg rat
LC50 (Inhalation)	> 3,4 mg/l rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-Amino-6-chloro-4-nitrophenol
6-hydroxy-3,4-dimethyl-2-pyridone
4-AMINOPHENOL

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

4-AMINOPHENOL

LC50 - for Fish	0,82 mg/l/96h
EC50 - for Crustacea	0,182 mg/l/48h
EC50 - for Algae / Aquatic Plants	0,062 mg/l/72h

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

SECTION 12. Ecological information ... / >>

2-Amino-6-chloro-4-nitrophenol
Solubility in water a 25°C mg/l

cineole
Rapidly degradable

ETHANOLAMINE
Solubility in water > 1000000 mg/l

Alcohols, C12-14
Solubility in water 20°C mg/l

4-AMINOPHENOL
Solubility in water > 1000 mg/l

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > a 20°C mg/l
Rapidly degradable

12.3. Bioaccumulative potential

2-Amino-6-chloro-4-nitrophenol
Partition coefficient: n-octanol/water 1,8 a 20°C

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

6-hydroxy-3,4-dimethyl-2-pyridone
Partition coefficient: n-octanol/water 2,4 Log Pow

4-AMINOPHENOL
Partition coefficient: n-octanol/water -0,09 Log Kow

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID:	FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG:	FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA:	FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3	Packaging instructions: 365 Packaging instructions: 354

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H341	Suspected of causing genetic defects.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.

SECTION 16. Other information ... / >>

H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:

SECTION 16. Other information ... / >>

14.

Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60141/3**
Product name **TONO SU TONO 9,78 SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

SECTION 2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H411 Toxic to aquatic life with long lasting effects.
EUH208 Contains: cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
May produce an allergic reaction.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280 Wear protective gloves/ protective clothing / eye protection / face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS *64-17-5*	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC *200-578-6*		
INDEX *603-002-00-5*		
Reg. no. *01-2119457610-43*		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS *110615-47-9*	10 ≤ x < 12	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC *600-975-8*		
INDEX		
Reg. no. *01-2119489418-23*		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS *90268-36-3*	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC *290-836-4*		
INDEX		
Reg. no. *01-2119977087-25*		
Alcohols, C12-14		
CAS *80206-82-2*	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC *279-420-3*		
INDEX		
L-Alanine, N-coco acyl derivs., sodium salts		
CAS *90170-45-9*	1 ≤ x < 3	**Eye Irrit. 2 H319**
EC *290-478-9*		
INDEX		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *66455-29-6* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Chronic 3 H412**
EC
INDEX
Reg. no. *01-2119529251-48-0012*
ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Classification note according to Annex VI to the CLP Regulation: B**
EC *231-633-2*
INDEX *015-011-00-6*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of

contaminated water used for extinction and the remains of the fire according to applicable regulations.SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2017

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	clear liquid
Colour	yellow
Odour	REF.STD
Odour threshold	Not available
pH	6,80 - 7,20
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	33 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0181 - 1,0281
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,16 %
VOC (volatile carbon) :	10,63 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

SECTION 11. Toxicological information ... / >>

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	1,3 mg/l 20°C

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

SECTION 12. Ecological information ... / >>

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > 200000 mg/l a 20°C
Rapidly degradable

12.3. Bioaccumulative potential

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3 - 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006

SECTION 16. Other information ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60142/3**
Product name **TONO SU TONO 7,21**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

SECTION 2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H411 Toxic to aquatic life with long lasting effects.
EUH208 Contains: cineole
(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-METHYL-p-PHENYLENEDIAMINE SULFATE
May produce an allergic reaction.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280 Wear protective gloves/ protective clothing / eye protection / face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS *64-17-5*	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC *200-578-6*		
INDEX *603-002-00-5*		
Reg. no. *01-2119457610-43*		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS *110615-47-9*	10 ≤ x < 12	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC *600-975-8*		
INDEX		
Reg. no. *01-2119489418-23*		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS *90268-36-3*	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC *290-836-4*		
INDEX		
Reg. no. *01-2119977087-25*		
Alcohols, C12-14		
CAS *80206-82-2*	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC *279-420-3*		
INDEX		
L-Alanine, N-coco acyl derivs., sodium salts		
CAS *90170-45-9*	1 ≤ x < 3	**Eye Irrit. 2 H319**
EC *290-478-9*		
INDEX		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *66455-29-6* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Chronic 3 H412**
EC
INDEX
Reg. no. *01-2119529251-48-0012*

ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Classification note according to Annex VI to the CLP Regulation: B**
EC *231-633-2*
INDEX *015-011-00-6*

2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate
CAS *54381-16-7* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *259-134-5*
INDEX

cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures ... / >>

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2017

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
Colour	yellow
Odour	REF.STD
Odour threshold	Not available
pH	6,80 - 7,20
Melting point / freezing point	Not available

SECTION 9. Physical and chemical properties ... / >>

Initial boiling point	Not available
Boiling range	Not available
Flash point	33 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0201 - 1,0301
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,15 %
VOC (volatile carbon) :	10,63 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID

May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

LD50 (Oral)	> 107 mg/kg ratto

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

SECTION 11. Toxicological information ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-METHYL-p-PHENYLENEDIAMINE SULFATE

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
EC50 - for Crustacea	1,19 mg/l/48h
Chronic NOEC for Crustacea	0,63 mg/l

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information ... / >>

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

Solubility in water	296 mg/l a 20°C

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	1,3 mg/l 20°C

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

ETHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2,68 mg/l

Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Solubility in water	> 200000 mg/l a 20°C

Rapidly degradable

12.3. Bioaccumulative potential

cineole

Partition coefficient: n-octanol/water	2,5 Log Kow

ETHANOLAMINE

Partition coefficient: n-octanol/water	-1,91

SECTION 12. Ecological information ... / >>

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point 3 - 40

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4

SECTION 16. Other information ... / >>

Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament

6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60143/3**
Product name **TONO SU TONO 8,74**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 2	H225	Highly flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

SECTION 2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

H225 Highly flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H411 Toxic to aquatic life with long lasting effects.
EUH208 Contains: cineole
2-Amino-6-chloro-4-nitrophenol
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-METHYL-p-PHENYLENEDIAMINE SULFATE
4-AMINOPHENOL
May produce an allergic reaction.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P280 Wear protective gloves/ protective clothing / eye protection / face protection.
P310 Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	10 ≤ x < 12	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
L-Alanine, N-coco acyl derivs., sodium salts		
CAS 90170-45-9	1 ≤ x < 3	**Eye Irrit. 2 H319**
EC 290-478-9		
INDEX		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *66455-29-6* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Chronic 3 H412**
EC
INDEX
Reg. no. *01-2119529251-48-0012*

ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Classification note according to Annex VI to the CLP Regulation: B**
EC *231-633-2*
INDEX *015-011-00-6*

4-AMINOPHENOL
CAS *123-30-8* 0,25 ≤ x < 0,5 **Muta. 2 H341, Acute Tox. 4 H302, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC *204-616-2*
INDEX *612-128-00-X*

2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX

2-Amino-6-chloro-4-nitrophenol
CAS *6358-09-4* 0 ≤ x < 0,5 **Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *228-762-1*
INDEX

cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can

SECTION 5. Firefighting measures ... / >>

be used to disperse flammable vapours and protect those trying to stem the leak.UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2018

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	clear liquid
Colour	orange
Odour	REF.STD
Odour threshold	Not available
pH	6,80 - 7,20
Melting point / freezing point	Not available

SECTION 9. Physical and chemical properties ... / >>

Initial boiling point	>	35 °C
Boiling range		Not available
Flash point	<	23 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		0,0000 - 0,0000
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,25 %
VOC (volatile carbon) :	10,67 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL
At high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

SECTION 10. Stability and reactivity ... / >>

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

4-AMINOPHENOL

LD50 (Oral)	671 mg/kg rat
LD50 (Dermal)	> 5000 mg/kg rat
LC50 (Inhalation)	> 3,4 mg/l rat

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

SECTION 11. Toxicological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
2-Amino-6-chloro-4-nitrophenol
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-METHYL-p-PHENYLENEDIAMINE SULFATE
4-AMINOPHENOL

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
EC50 - for Crustacea	1,19 mg/l/48h
Chronic NOEC for Crustacea	0,63 mg/l

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna

SECTION 12. Ecological information ... / >>

Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

4-AMINOPHENOL

LC50 - for Fish	0,82 mg/l/96h
EC50 - for Crustacea	0,182 mg/l/48h
EC50 - for Algae / Aquatic Plants	0,062 mg/l/72h

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

2-Amino-6-chloro-4-nitrophenol

Solubility in water	450 mg/l a 25°C

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	1,3 mg/l 20°C

4-AMINOPHENOL

Solubility in water	> 1000 mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

ETHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2,68 mg/l

Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Solubility in water	> 200000 mg/l a 20°C

Rapidly degradable

12.3. Bioaccumulative potential

SECTION 12. Ecological information ... / >>

2-Amino-6-chloro-4-nitrophenol
Partition coefficient: n-octanol/water 1,8 a 20°C

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

4-AMINOPHENOL
Partition coefficient: n-octanol/water -0,09 Log Kow

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ETHANOL; Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ETHANOL; Betaines, coco alkyldimethyl; Alcohols, C12-14)
IATA: FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ETHANOL; Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 338 Special Provision: -	Limited Quantities: 1 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 5 L	Packaging instructions: 363
	Pass.:	Maximum quantity: 1 L	Packaging instructions: 352
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation

SECTION 16. Other information ... / >>

- PEC: Predicted environmental Concentration- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**60144/3**
Product name	**TONO SU TONO STEEL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

SECTION 2. Hazards identification ... / >>

Hazard statements:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: cineole 2-METHYL-p-PHENYLENEDIAMINE SULFATE 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one (p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate May produce an allergic reaction.

Precautionary statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / clothing and eye / face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.

Contains:	Betaines, coco alkyldimethyl D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	13 ≤ x < 15	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	5 ≤ x < 7	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
Betaines, coco alkyldimethyl		
CAS 68424-94-2	1 ≤ x < 3	**Skin Corr. 1B H314, Aquatic Chronic 3 H412**
EC 270-329-4		
INDEX		

SECTION 3. Composition/information on ingredients ... / >>

ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*
PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Note B**
EC *231-633-2*
INDEX *015-011-00-6*
(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate
CAS *54381-16-7* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *259-134-5*
INDEX
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX
2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*
cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

SECTION 5. Firefighting measures ... / >>

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Chronic local	Acute local	Acute systemic	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		clear liquid
Colour		from yellow to orange
Odour		REF.STD
Odour threshold		Not available
pH		6,80 - 7,20
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		32 °C
Evaporation rate		Not available

SECTION 9. Physical and chemical properties ... / >>

Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0322 - 1,0422
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,26 %
VOC (volatile carbon) :	10,67 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

LD50 (Oral)	> 107 mg/kg ratto

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

SECTION 11. Toxicological information ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
2-METHYL-p-PHENYLENEDIAMINE SULFATE
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
Chronic NOEC for Crustacea	0,63 mg/l 21d Daphnia magna

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h

SECTION 12. Ecological information ... / >>

Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

Solubility in water	a 20°C mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water	> 1000 mg/l

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

ETHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2,68 mg/l

Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Solubility in water	> a 20°C mg/l

Rapidly degradable

12.3. Bioaccumulative potential

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Partition coefficient: n-octanol/water	0,74 Log Kow

cineole

Partition coefficient: n-octanol/water	2,5 Log Kow

ETHANOLAMINE

Partition coefficient: n-octanol/water	-1,91

SECTION 12. Ecological information ... / >>

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4

SECTION 16. Other information ... / >>

Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament

SECTION 16. Other information ... / >>

7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
14.

Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60145/3**
Product name **TONO SU TONO CHARCOAL SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

SECTION 2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H411 Toxic to aquatic life with long lasting effects.
EUH208 Contains: cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-METHYL-p-PHENYLENEDIAMINE SULFATE
(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate
May produce an allergic reaction.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280 Wear protective gloves/ protective clothing / eye protection / face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS 64-17-5	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC 200-578-6		
INDEX 603-002-00-5		
Reg. no. 01-2119457610-43		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS 110615-47-9	10 ≤ x < 12	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC 600-975-8		
INDEX		
Reg. no. 01-2119489418-23		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS 90268-36-3	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC 290-836-4		
INDEX		
Reg. no. 01-2119977087-25		
Alcohols, C12-14		
CAS 80206-82-2	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 279-420-3		
INDEX		
L-Alanine, N-coco acyl derivs., sodium salts		
CAS 90170-45-9	1 ≤ x < 3	**Eye Irrit. 2 H319**
EC 290-478-9		
INDEX		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *66455-29-6* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Chronic 3 H412**
EC
INDEX
Reg. no. *01-2119529251-48-0012*

ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Classification note according to Annex VI to the CLP Regulation: B**
EC *231-633-2*
INDEX *015-011-00-6*

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate
CAS *54381-16-7* 0,5 ≤ x < 0,7 **Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *259-134-5*
INDEX

2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS *615-50-9* 0 ≤ x < 0,5 **Acute Tox. 3 H301, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *210-431-8*
INDEX *612-030-00-7*
Reg. no. *01-2119962199-25*

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX

cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures ... / >>

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2017

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0126	mg/l
Normal value in marine water	0,00126	mg/l
Normal value for fresh water sediment	0,0112	mg/kg
Normal value for marine water sediment	0,00112	mg/kg
Normal value for water, intermittent release	0,7	mg/l
Normal value of STP microorganisms	0,177	mg/l
Normal value for the terrestrial compartment	0,00259	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation					VND	2,75 mg/m3	VND	0,49 mg/m3
Skin							VND	0,1 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid
Colour	orange
Odour	REF.STD
Odour threshold	Not available
pH	6,80 - 7,20
Melting point / freezing point	Not available

SECTION 9. Physical and chemical properties ... / >>

Initial boiling point	Not available
Boiling range	Not available
Flash point	33 °C
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0203 - 1,0303
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,31 %
VOC (volatile carbon) :	10,69 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID

May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

LD50 (Oral)	> 107 mg/kg ratto

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral)	102 mg/kg
LC50 (Inhalation)	1,77 mg/l/4h

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

SECTION 11. Toxicological information ... / >>

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
2-METHYL-p-PHENYLENEDIAMINE SULFATE
(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish	1,08 mg/l/96h
EC50 - for Crustacea	1,19 mg/l/48h
Chronic NOEC for Crustacea	0,63 mg/l

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

SECTION 12. Ecological information ... / >>

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

Solubility in water	296 mg/l a 20°C

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	1,3 mg/l 20°C

PHOSPHORIC ACID

Solubility in water	> 850000 mg/l

Degradability: information not available

ETHANOL

Solubility in water	1000 - 10000 mg/l

Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2,68 mg/l

Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Solubility in water	> 200000 mg/l a 20°C

Rapidly degradable

12.3. Bioaccumulative potential

cineole

Partition coefficient: n-octanol/water	2,5 Log Kow

ETHANOLAMINE

Partition coefficient: n-octanol/water	-1,91

SECTION 12. Ecological information ... / >>

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3 (8)

IMDG: Class: 3 Label: 3 (8)

IATA: Class: 3 Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4

SECTION 16. Other information ... / >>

Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament

6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **60146/3**
Product name **TONO SU TONO VIOLET AMETHYST**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

SECTION 2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

H226 Flammable liquid and vapour.
H314 Causes severe skin burns and eye damage.
H411 Toxic to aquatic life with long lasting effects.
EUH208 Contains: cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate
May produce an allergic reaction.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280 Wear protective gloves/ protective clothing / eye protection / face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor.

Contains: Betaines, coco alkyldimethyl
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
PHOSPHORIC ACID

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification 1272/2008 (CLP)**
ETHANOL		
CAS *64-17-5*	13 ≤ x < 15	**Flam. Liq. 2 H225**
EC *200-578-6*		
INDEX *603-002-00-5*		
Reg. no. *01-2119457610-43*		
D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides		
CAS *110615-47-9*	10 ≤ x < 12	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC *600-975-8*		
INDEX		
Reg. no. *01-2119489418-23*		
acido butandioico, solfo-, 1-C12-18-alchil esteri, sali bisodici		
CAS *90268-36-3*	3 ≤ x < 5	**Acute Tox. 4 H302, Eye Dam. 1 H318**
EC *290-836-4*		
INDEX		
Reg. no. *01-2119977087-25*		
Alcohols, C12-14		
CAS *80206-82-2*	3 ≤ x < 5	**Eye Irrit. 2 H319, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC *279-420-3*		
INDEX		
L-Alanine, N-coco acyl derivs., sodium salts		
CAS *90170-45-9*	1 ≤ x < 3	**Eye Irrit. 2 H319**
EC *290-478-9*		
INDEX		

SECTION 3. Composition/information on ingredients ... / >>

Betaines, coco alkyldimethyl
CAS *66455-29-6* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Chronic 3 H412**
EC
INDEX
Reg. no. *01-2119529251-48-0012*

ETHANOLAMINE
CAS *141-43-5* 1 ≤ x < 3 **Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335, Aquatic Chronic 3 H412**
EC *205-483-3*
INDEX *603-030-00-8*
Reg. no. *01-2119486455-28*

PHOSPHORIC ACID
CAS *7664-38-2* 1 ≤ x < 3 **Skin Corr. 1B H314, Eye Dam. 1 H318, Classification note according to Annex VI to the CLP Regulation: B**
EC *231-633-2*
INDEX *015-011-00-6*

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate
CAS *54381-16-7* 0,6 ≤ x < 1 **Acute Tox. 3 H301, Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *259-134-5*
INDEX

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0 ≤ x < 0,5 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *259-174-3*
INDEX

cineole
CAS *470-82-6* 0 ≤ x < 0,1 **Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Chronic 2 H411**
EC *207-431-5*
INDEX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

SECTION 5. Firefighting measures ... / >>

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2017
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2017

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP			1910	1000
WEL	GBR	1920	1000		
TLV-ACGIH				1884	1000

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,96	mg/l
Normal value in marine water	0,79	mg/l
Normal value for fresh water sediment	3,6	mg/kg
Normal value for water, intermittent release	2,75	mg/l
Normal value of STP microorganisms	580	mg/l
Normal value for the food chain (secondary poisoning)	720	mg/kg food
Normal value for the terrestrial compartment	0,63	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	87 mg/kg/d				
Inhalation	950 mg/m3	VND	VND	114 mg/m3	1900 mg/m3	VND	VND	950 mg/m3
Skin			VND	206 mg/kg/d			VND	343 mg/kg/d

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,176	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	1,516	mg/kg
Normal value for marine water sediment	0,065	mg/kg
Normal value for water, intermittent release	0,0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111,11	mg/kg
Normal value for the terrestrial compartment	0,654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	2,5	1	7,5	3	SKIN
WEL	GBR	2,5	1	7,6	3	SKIN
VLEP	ITA	2,5	1	7,6	3	SKIN
OEL	EU	2,5	1	7,6	3	SKIN
TLV-ACGIH		7,5	3	15	6	

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,085	mg/l
Normal value in marine water	0,0085	mg/l
Normal value for fresh water sediment	0,425	mg/kg
Normal value for marine water sediment	0,0425	mg/kg
Normal value for water, intermittent release	0,025	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	3,75 mg/kg/d				
Inhalation			VND	2 mg/m3			VND	3,3 mg/m3
Skin			VND	0,24 mg/kg/d			VND	1 mg/kg/d

PHOSPHORIC ACID

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLA	ESP	1		2	
WEL	GBR	1		2	
VLEP	ITA	1		2	
OEL	EU	1		2	
TLV-ACGIH		1		3	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0028	mg/l
Normal value in marine water	0,00028	mg/l
Normal value for fresh water sediment	3,73	mg/kg
Normal value for marine water sediment	0,75	mg/kg
Normal value for water, intermittent release	0,013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0,705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

SECTION 8. Exposure controls/personal protection ... / >>

When choosing personal protective equipment, ask your chemical substance supplier for advice.Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		liquid
Colour		from red to violet
Odour		REF.STD
Odour threshold		Not available
pH		6,80 - 7,20
Melting point / freezing point		Not available
Initial boiling point	>	35 °C
Boiling range		Not available
Flash point		33 °C
Evaporation rate		Not available
Flammability (solid, gas)		Not available
Lower inflammability limit		Not available
Upper inflammability limit		Not available
Lower explosive limit		Not available
Upper explosive limit		Not available
Vapour pressure		Not available
Vapour density		Not available
Relative density		1,0239 - 1,0339
Solubility		Not available
Partition coefficient: n-octanol/water		Not available
Auto-ignition temperature		Not available
Decomposition temperature		Not available
Viscosity		Not available
Explosive properties		Not available
Oxidising properties		Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	21,28 %
VOC (volatile carbon) :	10,68 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

PHOSPHORIC ACID
Decomposes at temperatures above 200°C/392°F.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

PHOSPHORIC ACID
Risk of explosion on contact with: nitromethane.May react dangerously with: alkalis,sodium borohydride.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

PHOSPHORIC ACID
Incompatible with: metals,strong alkalis,aldehydes,organic sulphides,peroxides.

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

PHOSPHORIC ACID
May develop: phosphoryl oxides.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

SECTION 11. Toxicological information ... / >>

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	> 20 mg/l
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

LD50 (Oral)	> 107 mg/kg ratto

cineole

LD50 (Oral)	2480 mg/kg Rat
LD50 (Dermal)	5000 mg/kg Rabbit

ETHANOLAMINE

LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1,3 mg/l 6h rat

Alcohols, C12-14

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit

PHOSPHORIC ACID

LD50 (Oral)	1530 mg/kg Rat
LD50 (Dermal)	2740 mg/kg Rabbit
LC50 (Inhalation)	> 0,85 mg/l/1h Rat

ETHANOL

LD50 (Oral)	> 5000 mg/kg Rat
LC50 (Inhalation)	120 mg/l/4h Pimephales promelas

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LD50 (Oral)	> 5000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
cineole
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

SECTION 11. Toxicological information ... / >>

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1,2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0,85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1,01 mg/l/96h
EC50 - for Crustacea	> 0,765 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	0,66 mg/l/72h
Chronic NOEC for Crustacea	0,014 mg/l

ETHANOL

LC50 - for Fish	14200 mg/l/96h
EC50 - for Crustacea	5012 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Crustacea	9,6 mg/l 9 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1296 mg/l 7 d - Lemna gibba (biomass)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1,3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1,38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2,6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0,3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0,448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2,6 mg/l 72h

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides

LC50 - for Fish	2,95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12,5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

12.2. Persistence and degradability

(p-ammoniophenyl)bis(2-hydroxyethyl)ammonium sulphate

Solubility in water	296 mg/l a 20°C

cineole
Rapidly degradable

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

SECTION 12. Ecological information ... / >>

Alcohols, C12-14
Solubility in water 1,3 mg/l 20°C

PHOSPHORIC ACID
Solubility in water > 850000 mg/l
Degradability: information not available

ETHANOL
Solubility in water 1000 - 10000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water 2,68 mg/l
Rapidly degradable

D-Glucopyranose, oligomeric, C10-16(even numbered) alkyl glycosides
Solubility in water > 200000 mg/l a 20°C
Rapidly degradable

12.3. Bioaccumulative potential

cineole
Partition coefficient: n-octanol/water 2,5 Log Kow

ETHANOLAMINE
Partition coefficient: n-octanol/water -1,91

Alcohols, C12-14
Partition coefficient: n-octanol/water 5,4

ETHANOL
Partition coefficient: n-octanol/water -0,35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 2924

14.2. UN proper shipping name

ADR / RID: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)
IMDG: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl, alcohols C12-14)
IATA: FLAMMABLE, LIQUID, CORROSIVE, N.O.S. (ethanol, Betaines, coco alkyldimethyl)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 3	Label: 3 (8)
IMDG:	Class: 3	Label: 3 (8)
IATA:	Class: 3	Label: 3 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 38 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-C	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 365
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 354
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: P5c-E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product
Point 3 - 40

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisarion (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level

SECTION 16. Other information ... / >>

- PNEC: Predicted no effect concentration- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 09 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61101**
Product name **A NEW COLOUR 99,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 4	Combustible liquid.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H227	Combustible liquid.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / clothing and eye / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: use . . . to extinguish.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
ETHANOLAMINE		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts		
CAS. 160104-51-8	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

SECTION 3. Composition/information on ingredients. ... / >>

4-amino-m-cresol

CAS.	*2835-99-6*	0.1 - 0.25	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

ETHANOLAMINE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

SECTION 8. Exposure controls/personal protection. ... / >>

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	Not available.	
Colour	Not available.	
Odour	Not available.	
Odour threshold.	Not available.	
pH.	Not available.	
Melting point / freezing point.	Not available.	
Initial boiling point.	Not available.	
Boiling range.	Not available.	
Flash point.	60 < T ≤ 93	°C.
Evaporation rate	Not available.	
Flammability (solid, gas)	Not available.	
Lower inflammability limit.	Not available.	
Upper inflammability limit.	Not available.	
Lower explosive limit.	Not available.	
Upper explosive limit.	Not available.	
Vapour pressure.	Not available.	
Vapour density	Not available.	
Relative density.	Not available.	
Solubility	Not available.	
Partition coefficient: n-octanol/water	Not available.	
Auto-ignition temperature.	Not available.	
Decomposition temperature.	Not available.	
Viscosity	Not available.	
Explosive properties	Not available.	
Oxidising properties	Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

SECTION 10. Stability and reactivity. ... / >>

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

a) tossicità acuta;
Tossicità moderata dopo breve inalazione. Tossicità moderata dopo breve contatto con la pelle.
Tossicità moderata dopo ingestione singola. Inhalation risk test (IRT): l'inalazione di una miscela vapori-aria altamente satura non rappresenta un rischio acuto (nessuna mortalità entro 8 ore).
Dati sperimentali/calcolati:
DL50 ratto (orale): 1.515 mg/kg (OECD - linea guida 401)
CL50 ratto (inalatoria): > 1,3 mg/l 6 h (IRT)
L'Unione Europea ha classificato la sostanza come 'nocivo'. E' stato testato il vapore.
DL50 coniglio (dermale): 2.504 mg/kg (OECD - linea guida 402)

b) Corrosione cutanea/irritazione cutanea;
Valutazione dell'effetto irritante: corrosivo
Dati sperimentali/calcolati: Corrosivo (coniglio) (Linea guida OECD 404)

c) gravi danni oculari/irritazione oculare;
Valutazione dell'effetto irritante: corrosivo
Dati sperimentali/calcolati: Corrosivo (irritante) (Linea guida OECD 405)

d) sensibilizzazione respiratoria o cutanea;
Valutazione dell'effetto sensibilizzante: Non esercita azione sensibilizzante.
Dati sperimentali/calcolati: Guinea Pig Maximation Test porcellino d'India: non sensibilizzante (OECD - linea guida 406)

e) mutagenicità sulle cellule germinali;
Valutazione di mutagenicità: Non è stato riscontrato un effetto mutageno in vari esperimenti su batteri e nella maggior parte delle colture cellulari di mammiferi che sono state esaminate. Anche in esperimenti su animali non è stato osservato alcun effetto mutageno.

f) cancerogenicità;
Valutazione di cancerogenicità:
Tutte le informazioni disponibili non forniscono alcuna indicazione di un possibile effetto cancerogeno

g) tossicità per la riproduzione;
Il prodotto non è stato testato. Le indicazioni sono derivate da sostanze/prodotti di composizione o struttura simile. Non si può escludere un potenziale danneggiamento della fertilità con somministrazione ad alti dosaggi, che causano, inoltre, altri danni alla salute. Alla luce dell'irrilevanza dei risultati per la salute umana, saranno effettuati ulteriori test.

SECTION 11. Toxicological information. ... / >>

Valutazione della teratogenità:
In esperimenti su animali la sostanza non ha causato malformazioni

h) tossicità specifica per organi bersaglio (STOT) — esposizione singola;
Valutazione STOT singola: ND

i) tossicità specifica per organi bersaglio (STOT) — esposizione ripetuta;
Valutazione della tossicità in seguito a somministrazione ripetuta: Dopo ripetute somministrazioni l'effetto principale è l'irritazione locale.
La sostanza può danneggiare
in caso di inalazione ripetuta le vie respiratorie primarie, come dimostrato dai test su animali.

j) pericolo in caso di aspirazione: Non é atteso alcun rischio di aspirazione.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

OLEIC ACID
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-amino-m-cresol
LD50 (Oral). 1200 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

SECTION 12. Ecological information. ... / >>

OLEIC ACID
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

ETHANOLAMINE
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

4-amino-m-cresol
LC50 - for Fish. 0.94 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 0.74 mg/l/48h Daphnia magna

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp,

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

OLEIC ACID
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

ETHANOLAMINE
Solubility in water. > 1000000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

ETHANOLAMINE
Partition coefficient: n-octanol/water. -1.91

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-amino-m-cresol
Partition coefficient: n-octanol/water. 0.51 20°C

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1760

14.2. UN proper shipping name.

ADR / RID:	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (ETHANOLAMINE)
IMDG:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; ETHANOLAMINE)
IATA:	CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; ETHANOLAMINE)

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 80	Limited Quantities: 5 L	Tunnel restriction code: (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

New Jersey:
108-46-3 RESORCINOL
56-81-5 Glycerol
141-43-5 ETHANOLAMINE

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

New York:

108-46-3	RESORCINOL
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
112-80-1	OLEIC ACID
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1310-73-2	SODIUM HYDROXIDE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	ETHANOLAMINE
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 4	Flammable liquid, category 4
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H227	Combustible liquid.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.

SECTION 16. Other information. ... / >>

H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.

SECTION 16. Other information. ... / >>

- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61102**
Product name **A NEW COLOUR 9,13**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 4	Combustible liquid.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H227	Combustible liquid.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / clothing and eye / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: use . . . to extinguish.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:
--
Storage:
--
Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
ETHANOLAMINE		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts		
CAS. 160104-51-8	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315

SECTION 3. Composition/information on ingredients. ... / >>

Alcohols, C16-18, ethoxylated
CAS. *68439-49-6* 1 - 5
Acute toxicity, category 4 H302, Eye irritation, category 2 H319,
Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1,
Hazardous to the aquatic environment, chronic toxicity, category 3 H412

2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS. *615-50-9* 0.5 - 1
Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

RESORCINOL
CAS. *108-46-3* 0.1 - 0.5
Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

2-METHYLRESORCINOL
CAS. *608-25-3* 0.1 - 0.5
Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

4-AMINOPHENOL
CAS. *123-30-8* 0 - 0.25
Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

ETHANOLAMINE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	Not available.	
Colour	Not available.	
Odour	Not available.	
Odour threshold.	Not available.	
pH.	Not available.	
Melting point / freezing point.	Not available.	
Initial boiling point.	Not available.	
Boiling range.	Not available.	
Flash point.	60 < T ≤ 93	°C.
Evaporation rate	Not available.	
Flammability (solid, gas)	Not available.	
Lower inflammability limit.	Not available.	
Upper inflammability limit.	Not available.	
Lower explosive limit.	Not available.	
Upper explosive limit.	Not available.	
Vapour pressure.	Not available.	
Vapour density	Not available.	
Relative density.	Not available.	
Solubility	Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

a) tossicità acuta;
Tossicità moderata dopo breve inalazione. Tossicità moderata dopo breve contatto con la pelle.
Tossicità moderata dopo ingestione singola. Inhalation risk test (IRT): l'inalazione di una miscela vapori-aria altamente satura non rappresenta un rischio acuto (nessuna mortalità entro 8 ore).
Dati sperimentali/calcolati:
DL50 ratto (orale): 1.515 mg/kg (OECD - linea guida 401)
CL50 ratto (inalatoria): > 1,3 mg/l 6 h (IRT)
L'Unione Europea ha classificato la sostanza come 'nocivo'. E' stato testato il vapore.
DL50 coniglio (dermale): 2.504 mg/kg (OECD - linea guida 402)

b) Corrosione cutanea/irritazione cutanea;
Valutazione dell'effetto irritante: corrosivo

SECTION 11. Toxicological information. ... / >>

Dati sperimentali/calcolati: Corrosivo (coniglio) (Linea guida OECD 404)

c) gravi danni oculari/irritazione oculare;
Valutazione dell'effetto irritante: corrosivo
Dati sperimentali/calcolati: Corrosivo (irritante) (Linea guida OECD 405)

d) sensibilizzazione respiratoria o cutanea;
Valutazione dell'effetto sensibilizzante: Non esercita azione sensibilizzante.
Dati sperimentali/calcolati: Guinea Pig Maximation Test porcellino d'India: non sensibilizzante (OECD - linea guida 406)

e) mutagenicità sulle cellule germinali;
Valutazione di mutagenicità: Non è stato riscontrato un effetto mutageno in vari esperimenti su batteri e nella maggior parte delle colture cellulari di mammiferi che sono state esaminate. Anche in esperimenti su animali non è stato osservato alcun effetto mutageno.

f) cancerogenicità;
Valutazione di cancerogenicità:
Tutte le informazioni disponibili non forniscono alcuna indicazione di un possibile effetto
cancerogeno

g) tossicità per la riproduzione;
Il prodotto non è stato testato. Le indicazioni sono derivate da sostanze/prodotti di composizione o struttura simile. Non si può escludere un potenziale danneggiamento della fertilità con somministrazione ad alti dosaggi, che causano, inoltre, altri danni alla salute. Alla luce dell'irrilevanza dei risultati per la salute umana, saranno effettuati ulteriori test.
Valutazione della teratogenità:
In esperimenti su animali la sostanza non ha causato malformazioni

h) tossicità specifica per organi bersaglio (STOT) — esposizione singola;
Valutazione STOT singola: ND

i) tossicità specifica per organi bersaglio (STOT) — esposizione ripetuta;
Valutazione della tossicità in seguito a somministrazione ripetuta: Dopo ripetute somministrazioni l'effetto principale è l'irritazione locale.
La sostanza può danneggiare
in caso di inalazione ripetuta le vie respiratorie primarie, come dimostrato dai test su animali.

j) pericolo in caso di aspirazione: Non é atteso alcun rischio di aspirazione.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

OLEIC ACID
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

SECTION 11. Toxicological information. ... / >>

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

OLEIC ACID
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

ETHANOLAMINE
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp,

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

OLEIC ACID
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

ETHANOLAMINE
Solubility in water. > 1000000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

SECTION 12. Ecological information. ... / >>

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

ETHANOLAMINE
Partition coefficient: n-octanol/water. -1.91

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (ETHANOLAMINE)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; ETHANOLAMINE)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; ETHANOLAMINE)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 80 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-B	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

New Jersey:
108-46-3 RESORCINOL
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

New York:
108-46-3 RESORCINOL
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
108-46-3 RESORCINOL
112-80-1 OLEIC ACID
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

California:
108-46-3 RESORCINOL
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 4	Flammable liquid, category 4
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H227	Combustible liquid.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)

SECTION 16. Other information. ... / >>

- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **61103**
Product name **A NEW COLOUR 7,13**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 4	Combustible liquid.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H227	Combustible liquid.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / clothing and eye / face protection.

Response:

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: use . . . to extinguish.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:
--
Storage:
--
Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
ETHANOLAMINE		
CAS. 141-43-5	5 - 9	Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
CAS. 160104-51-8 1 - 5 Eye irritation, category 2 H319, Skin irritation, category 2 H315

Alcohols, C16-18, ethoxylated
CAS. 68439-49-6 1 - 5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

2-METHYLRESORCINOL
CAS. 608-25-3 0.5 - 1 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

RESORCINOL
CAS. 108-46-3 0.1 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

4-AMINOPHENOL
CAS. 123-30-8 0 - 0.25 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

ETHANOLAMINE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN.
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

SECTION 8. Exposure controls/personal protection. ... / >>

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	Not available.	
Colour	Not available.	
Odour	Not available.	
Odour threshold.	Not available.	
pH.	Not available.	
Melting point / freezing point.	Not available.	
Initial boiling point.	Not available.	
Boiling range.	Not available.	
Flash point.	60 < T ≤ 93	°C.
Evaporation rate	Not available.	
Flammability (solid, gas)	Not available.	
Lower inflammability limit.	Not available.	
Upper inflammability limit.	Not available.	
Lower explosive limit.	Not available.	
Upper explosive limit.	Not available.	
Vapour pressure.	Not available.	
Vapour density	Not available.	
Relative density.	Not available.	
Solubility	Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

a) tossicità acuta;
Tossicità moderata dopo breve inalazione. Tossicità moderata dopo breve contatto con la pelle.
Tossicità moderata dopo ingestione singola. Inhalation risk test (IRT): l'inalazione di una miscela vapori-aria altamente satura non rappresenta un rischio acuto (nessuna mortalità entro 8 ore).
Dati sperimentali/calcolati:
DL50 ratto (orale): 1.515 mg/kg (OECD - linea guida 401)
CL50 ratto (inalatoria): > 1,3 mg/l 6 h (IRT)
L'Unione Europea ha classificato la sostanza come 'nocivo'. E' stato testato il vapore.
DL50 coniglio (dermale): 2.504 mg/kg (OECD - linea guida 402)

b) Corrosione cutanea/irritazione cutanea;
Valutazione dell'effetto irritante: corrosivo

SECTION 11. Toxicological information. ... / >>

Dati sperimentali/calcolati: Corrosivo (coniglio) (Linea guida OECD 404)

c) gravi danni oculari/irritazione oculare;
Valutazione dell'effetto irritante: corrosivo
Dati sperimentali/calcolati: Corrosivo (irritante) (Linea guida OECD 405)

d) sensibilizzazione respiratoria o cutanea;
Valutazione dell'effetto sensibilizzante: Non esercita azione sensibilizzante.
Dati sperimentali/calcolati: Guinea Pig Maximation Test porcellino d'India: non sensibilizzante (OECD - linea guida 406)

e) mutagenicità sulle cellule germinali;
Valutazione di mutagenicità: Non è stato riscontrato un effetto mutageno in vari esperimenti su batteri e nella maggior parte delle colture cellulari di mammiferi che sono state esaminate. Anche in esperimenti su animali non è stato osservato alcun effetto mutageno.

f) cancerogenicità;
Valutazione di cancerogenicità:
Tutte le informazioni disponibili non forniscono alcuna indicazione di un possibile effetto
cancerogeno

g) tossicità per la riproduzione;
Il prodotto non è stato testato. Le indicazioni sono derivate da sostanze/prodotti di composizione o struttura simile. Non si può escludere un potenziale danneggiamento della fertilità con somministrazione ad alti dosaggi, che causano, inoltre, altri danni alla salute. Alla luce dell'irrilevanza dei risultati per la salute umana, saranno effettuati ulteriori test.
Valutazione della teratogenità:
In esperimenti su animali la sostanza non ha causato malformazioni

h) tossicità specifica per organi bersaglio (STOT) — esposizione singola;
Valutazione STOT singola: ND

i) tossicità specifica per organi bersaglio (STOT) — esposizione ripetuta;
Valutazione della tossicità in seguito a somministrazione ripetuta: Dopo ripetute somministrazioni l'effetto principale è l'irritazione locale.
La sostanza può danneggiare
in caso di inalazione ripetuta le vie respiratorie primarie, come dimostrato dai test su animali.

j) pericolo in caso di aspirazione: Non é atteso alcun rischio di aspirazione.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

OLEIC ACID
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

ETHANOLAMINE
LD50 (Oral). 1515 mg/kg rat
LD50 (Dermal). 2504 mg/kg rabbit
LC50 (Inhalation). > 1.3 mg/l 6h rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

SECTION 11. Toxicological information. ... / >>

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LD50 (Oral). > 2000 mg/kg Rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

OLEIC ACID
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

ETHANOLAMINE
LC50 - for Fish. 349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea. 65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish. 1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea. 0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants. 1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

Poly(oxy-1,2-ethanediyl),a-sulfo-?-hydroxy-, C12-14-alkyl ethers, magnesium salts
LC50 - for Fish. 7.1 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 7.7 mg/l/48h Daphnia sp,

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

OLEIC ACID
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

ETHANOLAMINE
Solubility in water. > 1000000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

SECTION 12. Ecological information. ... / >>

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

ETHANOLAMINE
Partition coefficient: n-octanol/water. -1.91

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (ETHANOLAMINE)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; ETHANOLAMINE)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE; ETHANOLAMINE)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 80 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-B	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

New Jersey:
108-46-3 RESORCINOL
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

New York:
108-46-3 RESORCINOL
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
108-46-3 RESORCINOL
112-80-1 OLEIC ACID
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

California:
108-46-3 RESORCINOL
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 4	Flammable liquid, category 4
Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H227	Combustible liquid.
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)

SECTION 16. Other information. ... / >>

- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63000**
Product name **MASK with VIBRACHROM 1,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %*	Classification:
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
RESORCINOL		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity,

SECTION 3. Composition/information on ingredients. ... / >>

category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

2-(2,4-diaminophenoxy)ethanol dihydrochloride
CAS. *66422-95-5* 0.1 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin sensitization, category 1 H317

4-CHLORORESORCINOL
CAS. *95-88-5* 0.1 - 0.5 Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures. ... / >>

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SECTION 8. Exposure controls/personal protection. ... / >>

SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		9,50 - 10,50	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0282 - 1,0382	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		35.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

OLEIC ACID
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

2-(2,4-diaminophenoxy)ethanol dihydrochloride
LD50 (Oral). 1000 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

4-CHLORORESORCINOL
LD50 (Oral). 370 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

OLEIC ACID
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

OLEIC ACID
Rapidly biodegradable.

2-(2,4-diaminophenoxy)ethanol dihydrochloride
Solubility in water. 432000 mg/l a 25°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

4-CHLORORESORCINOL
Solubility in water. > 100000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-(2,4-diaminophenoxy)ethanol dihydrochloride
Partition coefficient: n-octanol/water. 0.51

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
112-80-1	OLEIC ACID
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

SECTION 15. Regulatory information. ... / >>

7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration

SECTION 16. Other information. ... / >>

- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
03.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63001**
Product name **MASK with VIBRACHROM 2,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

SECTION 3. Composition/information on ingredients. ... / >>

RESORCINOL
CAS. *108-46-3* 1 - 5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).

SECTION 8. Exposure controls/personal protection. ... / >>

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM		
Colour		FROM WHITE TO BEIGE		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,50 - 10,50		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9950 - 1,0050	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		50.000,0000 - 130.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

SECTION 10. Stability and reactivity. ... / >>

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

OLEIC ACID
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

OLEIC ACID
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

SECTION 12. Ecological information. ... / >>

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

OLEIC ACID
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL

SECTION 15. Regulatory information. ... / >>

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
112-80-1	OLEIC ACID
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4

SECTION 16. Other information. ... / >>

Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety

SECTION 16. Other information. ... / >>

- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63002**
Product name **MASK with VIBRACHROM 3.0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
RESORCINOL		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity,

SECTION 3. Composition/information on ingredients. ... / >>

category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

4-CHLORORESORCINOL
CAS. *95-88-5* 0.1 - 0.5 Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).

SECTION 8. Exposure controls/personal protection. ... / >>

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,50 - 10,50		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0150 - 1,0250	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		30.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

SECTION 10. Stability and reactivity. ... / >>

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

4-CHLORORESORCINOL
LD50 (Oral). 370 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

4-CHLORORESORCINOL
Solubility in water. > 100000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

SECTION 15. Regulatory information. ... / >>

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds

SECTION 16. Other information. ... / >>

- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63003**
Product name **MASK with VIBRACHROM 4,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
RESORCINOL		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM
Colour	white to beige / yellow
Odour	STD. REF.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		9,50 - 10,50	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0167 - 1,0267	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		35.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)

SECTION 16. Other information. ... / >>

- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63004**
Product name **MASK with VIBRACHROM 5,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM
Colour	white to beige / yellow
Odour	STD. REF.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0050	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)

SECTION 16. Other information. ... / >>

- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63005**
Product name **MASK with VIBRACHROM 6,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0083 - 1,0183	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website

SECTION 16. Other information. ... / >>

- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63006**
Product name **MASK with VIBRACHROM 7,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0069 - 1,0169	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		35.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

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1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63007**
Product name **MASK with VIBRACHROM 8,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

SECTION 8. Exposure controls/personal protection. ... / >>

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9950 - 1,0050	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 120.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

SECTION 12. Ecological information. ... / >>

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

SECTION 15. Regulatory information. ... / >>

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:

SECTION 15. Regulatory information. ... / >>

None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
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- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code

SECTION 16. Other information. ... / >>

- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
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- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63008**
Product name **MASK with VIBRACHROM 9,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Vapour density	Not available.
Relative density.	0,9950 - 1,0250 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	35.000,0000 - 100.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

ALCOHOLS, c16-18

LD50 (Oral).	> 2000 mg/kg rat

2-METHYLRESORCINOL

LD50 (Oral).	200 mg/kg

SECTION 11. Toxicological information. ... / >>

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

SECTION 15. Regulatory information. ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
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- LC50: Lethal Concentration 50%

SECTION 16. Other information. ... / >>

- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
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- VOC: Volatile organic Compounds
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- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
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- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63009**
Product name **MASK with VIBRACHROM 10,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Vapour density	Not available.
Relative density.	0,9950 - 1,0050 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	40.000,0000 - 100.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

ALCOHOLS, c16-18

LD50 (Oral).	> 2000 mg/kg rat

AMMONIA

LD50 (Oral).	350 mg/kg Rat

Alcohols, C16-18, ethoxylated

LD50 (Oral).	> 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE	
LC50 - for Fish.	1.08 mg/l/96h
Chronic NOEC for Crustacea.	0.63 mg/l 21d Daphnia magna
AMMONIA	
LC50 - for Fish.	47 mg/l/96h Channa punctata
EC50 - for Crustacea.	20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE	
Solubility in water.	> 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE	
Partition coefficient: n-octanol/water.	0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

SECTION 14. Transport information. ... / >>

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

State Regulations.

Massachussetts:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B

SECTION 16. Other information. ... / >>

Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology

SECTION 16. Other information. ... / >>

- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63010**
Product name **MASK with VIBRACHROM 33,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
RESORCINOL		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity,

SECTION 3. Composition/information on ingredients. ... / >>

category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

4-CHLORORESORCINOL
CAS. *95-88-5* 0.1 - 0.5 Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).

SECTION 8. Exposure controls/personal protection. ... / >>

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,50 - 10,50		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9950 - 1,0050	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		35.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

SECTION 10. Stability and reactivity. ... / >>

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

OLEIC ACID
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

4-CHLORORESORCINOL
LD50 (Oral). 370 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

SECTION 12. Ecological information. ... / >>

OLEIC ACID
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

OLEIC ACID
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

4-CHLORORESORCINOL
Solubility in water. > 100000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

SECTION 15. Regulatory information. ... / >>

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
112-80-1	OLEIC ACID
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

SECTION 15. Regulatory information. ... / >>

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value

SECTION 16. Other information. ... / >>

- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63011**
Product name **MASK with VIBRACHROM 44,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
RESORCINOL		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM
Colour	white to beige / yellow
Odour	STD. REF.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		9,70 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0050	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)

SECTION 16. Other information. ... / >>

- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63012**
Product name **MASK with VIBRACHROM 55,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM
Colour	white to beige / yellow
Odour	STD. REF.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		8,50 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0130 - 1,0230	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		35.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)

SECTION 16. Other information. ... / >>

- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63013**
Product name **MASK with VIBRACHROM 66,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0250	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		35.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website

SECTION 16. Other information. ... / >>

- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63014**
Product name **MASK with VIBRACHROM 77,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0070 - 1,0170	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		35.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63015**
Product name **MASK with VIBRACHROM 88,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0050	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63016**
Product name **MASK with VIBRACHROM 99,0**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Vapour density	Not available.
Relative density.	0,9950 - 1,0150 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	40.000,0000 - 120.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

ALCOHOLS, c16-18

LD50 (Oral).	> 2000 mg/kg rat

2-METHYLRESORCINOL

LD50 (Oral).	200 mg/kg

SECTION 11. Toxicological information. ... / >>

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

SECTION 15. Regulatory information. ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%

SECTION 16. Other information. ... / >>

- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63017**
Product name **MASK with VIBRACHROM 4NW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
4-CHLORORESORCINOL		
CAS. 95-88-5	0.1 - 0.5	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Skin sensitization, category 1 H317
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR

SECTION 8. Exposure controls/personal protection. ... / >>

1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,70 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0124 - 1,0224	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-CHLORORESORCINOL
LD50 (Oral). 370 mg/kg rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

RESORCINOL

LC50 - for Fish.	29.5 mg/l/96h
EC50 - for Crustacea.	1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea.	0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish.	1.08 mg/l/96h
Chronic NOEC for Crustacea.	0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL

LC50 - for Fish.	0.82 mg/l/96h
EC50 - for Crustacea.	0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.062 mg/l/72h

AMMONIA

LC50 - for Fish.	47 mg/l/96h Channa punctata
EC50 - for Crustacea.	20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL

Solubility in water.	1400 mg/l
Rapidly biodegradable.	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water.	> 1000 mg/l

2-METHYLRESORCINOL

Solubility in water.	263000 mg/l 25°C

4-CHLORORESORCINOL

Solubility in water.	> 100000 mg/l

4-AMINOPHENOL

Solubility in water.	> 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL

Partition coefficient: n-octanol/water.	0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Partition coefficient: n-octanol/water.	0.74 Log KOW

2-METHYLRESORCINOL

Partition coefficient: n-octanol/water.	1.7 Log KOW

4-AMINOPHENOL

Partition coefficient: n-octanol/water.	-0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

7775-14-6 SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)

SECTION 16. Other information. ... / >>

- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63018**
Product name **MASK with VIBRACHROM 5NW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity,

SECTION 3. Composition/information on ingredients. ... / >>

category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

2-METHYLRESORCINOL
CAS. 608-25-3 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

4-AMINOPHENOL
CAS. 123-30-8 0 - 0.25 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

4-CHLORORESORCINOL
CAS. 95-88-5 0.1 - 0.5 Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

SECTION 8. Exposure controls/personal protection. ... / >>

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0145 - 1,0245	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-CHLORORESORCINOL
LD50 (Oral). 370 mg/kg rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RESORCINOL

LC50 - for Fish.	29.5 mg/l/96h
EC50 - for Crustacea.	1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea.	0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish.	1.08 mg/l/96h
Chronic NOEC for Crustacea.	0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL

LC50 - for Fish.	0.82 mg/l/96h
EC50 - for Crustacea.	0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.062 mg/l/72h

AMMONIA

LC50 - for Fish.	47 mg/l/96h Channa punctata
EC50 - for Crustacea.	20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL

Solubility in water.	1400 mg/l

Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water.	> 1000 mg/l

2-METHYLRESORCINOL

Solubility in water.	263000 mg/l 25°C

4-CHLORORESORCINOL

Solubility in water.	> 100000 mg/l

4-AMINOPHENOL

Solubility in water.	> 1000 mg/l

AMMONIA

Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL

Partition coefficient: n-octanol/water.	0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Partition coefficient: n-octanol/water.	0.74 Log KOW

2-METHYLRESORCINOL

Partition coefficient: n-octanol/water.	1.7 Log KOW

4-AMINOPHENOL

Partition coefficient: n-octanol/water.	-0.09 Log Kow

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

Information not available.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL

SECTION 15. Regulatory information. ... / >>

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)

SECTION 16. Other information. ... / >>

- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63019**
Product name **MASK with VIBRACHROM 6NW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

SECTION 8. Exposure controls/personal protection. ... / >>

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9950 - 1,0350	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

SECTION 12. Ecological information. ... / >>

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

SECTION 15. Regulatory information. ... / >>

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:

SECTION 15. Regulatory information. ... / >>

None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code

SECTION 16. Other information. ... / >>

- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63020**
Product name **MASK WITH VIBRACHROM 7NW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

SECTION 8. Exposure controls/personal protection. ... / >>

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0067 - 1,0167	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		35.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

SECTION 12. Ecological information. ... / >>

4-AMINOPHENOL

LC50 - for Fish.	0.82 mg/l/96h
EC50 - for Crustacea.	0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.062 mg/l/72h

AMMONIA

LC50 - for Fish.	47 mg/l/96h Channa punctata
EC50 - for Crustacea.	20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL

Solubility in water.	1400 mg/l
Rapidly biodegradable.	

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water.	> 1000 mg/l

2-METHYLRESORCINOL

Solubility in water.	263000 mg/l 25°C

4-AMINOPHENOL

Solubility in water.	> 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL

Partition coefficient: n-octanol/water.	0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Partition coefficient: n-octanol/water.	0.74 Log KOW

2-METHYLRESORCINOL

Partition coefficient: n-octanol/water.	1.7 Log KOW

4-AMINOPHENOL

Partition coefficient: n-octanol/water.	-0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

SECTION 15. Regulatory information. ... / >>

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:

SECTION 15. Regulatory information. ... / >>

None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code

SECTION 16. Other information. ... / >>

- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 07 / 08 / 09 / 11 / 12 / 15 / 16.
Changed TLVs in section 8.1 for following countries:
EU,

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63021**
Product name **MASK with VIBRACHROM 8NW**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,0013 - 1,0113 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	40.000,0000 - 100.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

ALCOHOLS, c16-18

LD50 (Oral).	> 2000 mg/kg rat

SECTION 11. Toxicological information. ... / >>

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.

Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road

SECTION 16. Other information. ... / >>

- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

SECTION 16. Other information. ... / >>

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63022**
Product name **MASK WITH VIBRACHROM 4,1**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE		
CAS. 54381-16-7	0.1 - 0.5	Acute toxicity, category 3 H301, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0173 - 1,0223	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		35.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE
LD50 (Oral). > 107 mg/kg ratto

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE
Solubility in water. 296 mg/l a 20°C

SECTION 12. Ecological information. ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website

SECTION 16. Other information. ... / >>

- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63023**
Product name **MASK with VIBRACHROM 5,1**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE		
CAS. 54381-16-7	0.1 - 0.5	Acute toxicity, category 3 H301, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0050	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		35.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE
LD50 (Oral). > 107 mg/kg ratto

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE
Solubility in water. 296 mg/l a 20°C

SECTION 12. Ecological information. ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63024**
Product name **MASK with VIBRACHROM 6.1**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE		
CAS. 54381-16-7	0.1 - 0.5	Acute toxicity, category 3 H301, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0250	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		30.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE
LD50 (Oral). > 107 mg/kg ratto

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE
Solubility in water. 296 mg/l a 20°C

SECTION 12. Ecological information. ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
03 / 08 / 09 / 11 / 12 / 16.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63025**
Product name **MASK WITH VIBRACHROM 7.1**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0073 - 1,0173	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		35.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

SECTION 12. Ecological information. ... / >>

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
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141-43-5 2-AMINOETHANOL
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1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3 Acute toxicity, category 3
Acute Tox. 4 Acute toxicity, category 4
Skin Corr. 1B Skin corrosion, category 1B
Skin Corr. 1C Skin corrosion, category 1C
Eye Dam. 1 Serious eye damage, category 1
Eye Irrit. 2 Eye irritation, category 2
Skin Irrit. 2 Skin irritation, category 2
STOT SE 3 Specific target organ toxicity - single exposure, category 3
Skin Sens. 1 Skin sensitization, category 1
Aquatic Acute 1 Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2 Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3 Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4 Hazardous to the aquatic environment, chronic toxicity, category 4
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H335 May cause respiratory irritation.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63026**
Product name **MASK WITH VIBRACHROM 8,1**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM
Colour	white to beige / yellow
Odour	STD. REF.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0050	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		45.000,0000 - 120.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
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Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
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H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

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- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
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- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

SECTION 16. Other information. ... / >>

The following sections were modified:
03 / 08 / 09 / 11 / 12 / 16.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63027**
Product name **MASK WITH VIBRACHROM 9,1**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,70 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	0,9950 - 1,0050 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	35.000,0000 - 120.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

ALCOHOLS, c16-18

LD50 (Oral).	> 2000 mg/kg rat

SECTION 11. Toxicological information. ... / >>

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

California:

SECTION 15. Regulatory information. ... / >>

141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act

SECTION 16. Other information. ... / >>

- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
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Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
03 / 08 / 09 / 11 / 12 / 16.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**63028**
Product name	**MASK with VIBRACHROM 10.01**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**professional use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Vapour density	Not available.
Relative density.	0,9950 - 1,0050 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	40.000,0000 - 100.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

ALCOHOLS, c16-18

LD50 (Oral).	> 2000 mg/kg rat

4-AMINOPHENOL

LD50 (Oral).	671 mg/kg rat
LD50 (Dermal).	> 5000 mg/kg rat
LC50 (Inhalation).	> 3.4 mg/l rat

SECTION 11. Toxicological information. ... / >>

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

SECTION 15. Regulatory information. ... / >>

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level

SECTION 16. Other information. ... / >>

- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63029**
Product name **MASK with VIBRACHROM 2,11**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
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Storage:
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Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity,

SECTION 3. Composition/information on ingredients. ... / >>

category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

2-(2,4-diaminophenoxy)ethanol dihydrochloride
CAS. *66422-95-5* 0.5 - 1 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin sensitization, category 1 H317

N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE
CAS. *54381-16-7* 0.1 - 0.5 Acute toxicity, category 3 H301, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317

5-AMINO-O-CRESOL
CAS. *2835-95-2* 0.1 - 0.25 Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

SECTION 8. Exposure controls/personal protection. ... / >>

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,70 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9950 - 1,0050	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		30.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-(2,4-diaminophenoxy)ethanol dihydrochloride
LD50 (Oral). 1000 mg/kg rat

N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE
LD50 (Oral). > 107 mg/kg ratto

5-AMINO-O-CRESOL
LD50 (Oral). 3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

SECTION 12. Ecological information. ... / >>

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-(2,4-diaminophenoxy)ethanol dihydrochloride
Solubility in water. 432000 mg/l a 25°C

N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE
Solubility in water. 296 mg/l a 20°C

5-AMINO-O-CRESOL
Solubility in water. 0.004112 mg/l a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-(2,4-diaminophenoxy)ethanol dihydrochloride
Partition coefficient: n-octanol/water. 0.51

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water. -0.53 Log KOW

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals

SECTION 16. Other information. ... / >>

- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63030**
Product name **MASK with VIBRACHROM 5.11**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %*	Classification:
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE		
CAS. 54381-16-7	0.1 - 0.5	Acute toxicity, category 3 H301, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		Ref. Std.	
Odour threshold.		Not available.	
pH.		9,70 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0050	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		35.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE
LD50 (Oral). > 107 mg/kg ratto

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE
Solubility in water. 296 mg/l a 20°C

SECTION 12. Ecological information. ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63031**
Product name **MASK WITH VIBRACHROM 7.11**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9950 - 1,0050	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		35.000,0000 - 120.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

SECTION 12. Ecological information. ... / >>

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63032**
Product name **MASK with VIBRACHROM 10.12**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Vapour density	Not available.
Relative density.	0,9983 - 1,0083 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	40.000,0000 - 100.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

ALCOHOLS, c16-18

LD50 (Oral).	> 2000 mg/kg rat

4-AMINOPHENOL

LD50 (Oral).	671 mg/kg rat
LD50 (Dermal).	> 5000 mg/kg rat
LC50 (Inhalation).	> 3.4 mg/l rat

SECTION 11. Toxicological information. ... / >>

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

SECTION 15. Regulatory information. ... / >>

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level

SECTION 16. Other information. ... / >>

- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63033**
Product name **MASK with VIBRACHROM 4,14**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity,

SECTION 3. Composition/information on ingredients. ... / >>

category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

2-METHYLRESORCINOL
CAS. 608-25-3 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

4-AMINOPHENOL
CAS. 123-30-8 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

4-CHLORORESORCINOL
CAS. 95-88-5 0.1 - 0.5 Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

SECTION 8. Exposure controls/personal protection. ... / >>

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,50 - 10,50		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0134 - 1,0234	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-CHLORORESORCINOL
LD50 (Oral). 370 mg/kg rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RESORCINOL

LC50 - for Fish.	29.5 mg/l/96h
EC50 - for Crustacea.	1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea.	0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish.	1.08 mg/l/96h
Chronic NOEC for Crustacea.	0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL

LC50 - for Fish.	0.82 mg/l/96h
EC50 - for Crustacea.	0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.062 mg/l/72h

AMMONIA

LC50 - for Fish.	47 mg/l/96h Channa punctata
EC50 - for Crustacea.	20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL

Solubility in water.	1400 mg/l

Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water.	> 1000 mg/l

2-METHYLRESORCINOL

Solubility in water.	263000 mg/l 25°C

4-CHLORORESORCINOL

Solubility in water.	> 100000 mg/l

4-AMINOPHENOL

Solubility in water.	> 1000 mg/l

AMMONIA

Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL

Partition coefficient: n-octanol/water.	0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Partition coefficient: n-octanol/water.	0.74 Log KOW

2-METHYLRESORCINOL

Partition coefficient: n-octanol/water.	1.7 Log KOW

4-AMINOPHENOL

Partition coefficient: n-octanol/water.	-0.09 Log Kow

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

Information not available.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL

SECTION 15. Regulatory information. ... / >>

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)

SECTION 16. Other information. ... / >>

- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63034**
Product name **MASK with VIBRACHROM 5,14**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity,

SECTION 3. Composition/information on ingredients. ... / >>

category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

2-METHYLRESORCINOL
CAS. 608-25-3 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

4-AMINOPHENOL
CAS. 123-30-8 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

4-CHLORORESORCINOL
CAS. 95-88-5 0.1 - 0.5 Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

SECTION 8. Exposure controls/personal protection. ... / >>

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,70 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0135 - 1,0235	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-CHLORORESORCINOL
LD50 (Oral). 370 mg/kg rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RESORCINOL

LC50 - for Fish.	29.5 mg/l/96h
EC50 - for Crustacea.	1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea.	0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish.	1.08 mg/l/96h
Chronic NOEC for Crustacea.	0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL

LC50 - for Fish.	0.82 mg/l/96h
EC50 - for Crustacea.	0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.062 mg/l/72h

AMMONIA

LC50 - for Fish.	47 mg/l/96h Channa punctata
EC50 - for Crustacea.	20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL

Solubility in water.	1400 mg/l

Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Solubility in water.	> 1000 mg/l

2-METHYLRESORCINOL

Solubility in water.	263000 mg/l 25°C

4-CHLORORESORCINOL

Solubility in water.	> 100000 mg/l

4-AMINOPHENOL

Solubility in water.	> 1000 mg/l

AMMONIA

Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL

Partition coefficient: n-octanol/water.	0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE

Partition coefficient: n-octanol/water.	0.74 Log KOW

2-METHYLRESORCINOL

Partition coefficient: n-octanol/water.	1.7 Log KOW

4-AMINOPHENOL

Partition coefficient: n-octanol/water.	-0.09 Log Kow

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

Information not available.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL

SECTION 15. Regulatory information. ... / >>

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)

SECTION 16. Other information. ... / >>

- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63035**
Product name **MASK with VIBRACHROM 6.14**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SECTION 3. Composition/information on ingredients. ... / >>

RESORCINOL
CAS. 108-46-3 0.1 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

4-AMINOPHENOL
CAS. 123-30-8 0 - 0.25 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures. ... / >>

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0050	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		35.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)

SECTION 16. Other information. ... / >>

- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63036**
Product name **MASK with VIBRACHROM 5.15**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		9,70 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0080 - 1,0180	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website

SECTION 16. Other information. ... / >>

- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63037**
Product name **MASK with VIBRACHROM 6,15**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0080 - 1,0180	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website

SECTION 16. Other information. ... / >>

- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63038**
Product name **MASK with VIBRACHROM 2,21**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

Additional hazards.
Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.5 - 1	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity,

SECTION 3. Composition/information on ingredients. ... / >>

category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE
CAS. *54381-16-7* 0.1 - 0.5 Acute toxicity, category 3 H301, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317

5-AMINO-O-CRESOL
CAS. *2835-95-2* 0.25 - 0.5 Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

2-(2,4-diaminophenoxy)ethanol dihydrochloride
CAS. *66422-95-5* 0.1 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

SECTION 8. Exposure controls/personal protection. ... / >>

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,50 - 10,50		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9950 - 1,0050	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		35.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-(2,4-diaminophenoxy)ethanol dihydrochloride
LD50 (Oral). 1000 mg/kg rat

N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE
LD50 (Oral). > 107 mg/kg ratto

5-AMINO-O-CRESOL
LD50 (Oral). 3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

SECTION 12. Ecological information. ... / >>

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-(2,4-diaminophenoxy)ethanol dihydrochloride
Solubility in water. 432000 mg/l a 25°C

N,N BIS-(2-HYDROXYETHYL) p-PHENILENEDIAMINE SULPHATE
Solubility in water. 296 mg/l a 20°C

5-AMINO-O-CRESOL
Solubility in water. 0.004112 mg/l a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-(2,4-diaminophenoxy)ethanol dihydrochloride
Partition coefficient: n-octanol/water. 0.51

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water. -0.53 Log KOW

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals

SECTION 16. Other information. ... / >>

- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63039**
Product name **MASK WITH VIBRACHROM 4,22**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		Conc. %*	Classification:
Alcohols, C16-18, ethoxylated			
CAS.	*68439-49-6*	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)			
CAS.	*68439-49-6*	1 - 5	Eye irritation, category 2 H319
AMMONIA			
CAS.	*1336-21-6*	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE			
CAS.	*615-50-9*	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
1-Hydroxyethyl-4,5-diaminopyrazole sulfate			
CAS.	*155601-30-2*	0.1 - 0.5	Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

5-AMINO-O-CRESOL

CAS.	*2835-95-2*	0.25 - 0.5	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		30.000,00 - 280.000,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9950 - 1,0050	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

5-AMINO-O-CRESOL
LD50 (Oral). 3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LD50 (Oral). > 2000 mg/kg Rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LC50 - for Fish. > 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea. 11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 5.33 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish. > 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea. < 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

5-AMINO-O-CRESOL
Solubility in water. 0.004112 mg/l a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
NOT rapidly biodegradable.

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

SECTION 12. Ecological information. ... / >>

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water. -0.53 Log KOW

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

SECTION 15. Regulatory information. ... / >>

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road

SECTION 16. Other information. ... / >>

- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

SECTION 16. Other information. ... / >>

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63040**
Product name **MASK with VIBRACHROM 7,24**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,70 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,0103 - 1,0203 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	35.000,0000 - 100.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

ALCOHOLS, c16-18

LD50 (Oral).	> 2000 mg/kg rat

SECTION 11. Toxicological information. ... / >>

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

California:

SECTION 15. Regulatory information. ... / >>

141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act

SECTION 16. Other information. ... / >>

- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63041**
Product name **MASK with VIBRACHROM 10.23**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Vapour density	Not available.
Relative density.	0,9988 - 1,0088 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	35.000,0000 - 100.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

ALCOHOLS, c16-18

LD50 (Oral).	> 2000 mg/kg rat

2-METHYLRESORCINOL

LD50 (Oral).	200 mg/kg

SECTION 11. Toxicological information. ... / >>

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

SECTION 15. Regulatory information. ... / >>

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.

Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds

SECTION 16. Other information. ... / >>

- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63042**
Product name **MASK WITH VIBRACHROM 5,3**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		ORANGE		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0113 - 1,0213	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website

SECTION 16. Other information. ... / >>

- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
03 / 09 / 11 / 12 / 16.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63043**
Product name **MASK WITH VIBRACHROM 6,3**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		ORANGE		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9950 - 1,0250	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		30.000,0000 - 120.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 07 / 08 / 09 / 11 / 12 / 15 / 16.
Changed TLVs in section 8.1 for following countries:
EU,

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63044**
Product name **MASK WITH VIBRACHROM 7,3**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM		
Colour		orange		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0075 - 1,0175	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 120.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

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1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 07 / 08 / 09 / 11 / 12 / 15 / 16.
Changed TLVs in section 8.1 for following countries:
EU,

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63045**
Product name **MASK with VIBRACHROM 8,3**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		ORANGE	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0250	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		30.000,0000 - 120.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**63046**
Product name	**MASK with VIBRACHROM 9,3**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**professional use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
4-amino-m-cresol		
CAS. 2835-99-6	0.1 - 0.25	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		ORANGE		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,0043 - 1,0143 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	35.000,0000 - 100.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

ALCOHOLS, c16-18

LD50 (Oral).	> 2000 mg/kg rat

SECTION 11. Toxicological information. ... / >>

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-amino-m-cresol
LD50 (Oral). 1200 mg/kg Rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-amino-m-cresol
LC50 - for Fish. 0.94 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 0.74 mg/l/48h Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-amino-m-cresol
Partition coefficient: n-octanol/water. 0.51 20°C

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
108-46-3 RESORCINOL
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
108-46-3 RESORCINOL
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

7775-14-6 SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

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- EmS: Emergency Schedule

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- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63047**
Product name **MASK with VIBRACHROM 9,31**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
4-amino-m-cresol		
CAS. 2835-99-6	0.1 - 0.25	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

SECTION 8. Exposure controls/personal protection. ... / >>

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9980 - 1,0080	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 120.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-amino-m-cresol
LD50 (Oral). 1200 mg/kg Rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

SECTION 12. Ecological information. ... / >>

4-amino-m-cresol
LC50 - for Fish. 0.94 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 0.74 mg/l/48h Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-amino-m-cresol
Partition coefficient: n-octanol/water. 0.51 20°C

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

SECTION 15. Regulatory information. ... / >>

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information. ... / >>

None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.

SECTION 16. Other information. ... / >>

- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63048**
Product name **MASK with VIBRACHROM 7.32**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,0051 - 1,0151 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	35.000,0000 - 100.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

ALCOHOLS, c16-18

LD50 (Oral).	> 2000 mg/kg rat

SECTION 11. Toxicological information. ... / >>

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

SECTION 15. Regulatory information. ... / >>

141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act

SECTION 16. Other information. ... / >>

- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63049**
Product name **MASK WITH VIBRACHROM 8,33**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %*	Classification:
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
4-amino-m-cresol		
CAS. 2835-99-6	0.25 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

SECTION 3. Composition/information on ingredients. ... / >>

4-AMINOPHENOL

CAS. *123-30-8* 0 - 0.25 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		ORANGE		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,70 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0053 - 1,0153	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		35.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-amino-m-cresol
LD50 (Oral). 1200 mg/kg Rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

4-amino-m-cresol
LC50 - for Fish. 0.94 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 0.74 mg/l/48h Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

SECTION 12. Ecological information. ... / >>

4-amino-m-cresol
Partition coefficient: n-octanol/water. 0.51 20°C

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

SECTION 15. Regulatory information. ... / >>

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:

SECTION 16. Other information. ... / >>

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.

SECTION 16. Other information. ... / >>

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 07 / 08 / 09 / 11 / 12 / 15 / 16.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63050**
Product name **MASK with VIBRACHROM 5,34**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated			
CAS.	*68439-49-6*	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)			
CAS.	*68439-49-6*	1 - 5	Eye irritation, category 2 H319
AMMONIA			
CAS.	*1336-21-6*	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE			
CAS.	*615-50-9*	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL			
CAS.	*108-46-3*	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

SECTION 3. Composition/information on ingredients. ... / >>

4-AMINOPHENOL
CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

2-METHYLRESORCINOL
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures. ... / >>

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0088 - 1,0188	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		40.000,0000 - 135.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals

SECTION 16. Other information. ... / >>

- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63051**
Product name **MASK with VIBRACHROM 6,34**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		Conc. %*	Classification:
Alcohols, C16-18, ethoxylated			
CAS.	*68439-49-6*	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)			
CAS.	*68439-49-6*	1 - 5	Eye irritation, category 2 H319
AMMONIA			
CAS.	*1336-21-6*	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE			
CAS.	*615-50-9*	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
4-AMINOPHENOL			
CAS.	*123-30-8*	0.25 - 0.5	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

2-METHYLRESORCINOL
CAS. *608-25-3* 0.1 - 0.5 Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

RESORCINOL
CAS. *108-46-3* 0.1 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures. ... / >>

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0250	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		30.000,0000 - 120.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals

SECTION 16. Other information. ... / >>

- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63052**
Product name **MASK WITH VIBRACHROM 7,34**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %*	Classification:
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
4-AMINOPHENOL		
CAS. 123-30-8	0.25 - 0.5	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE

CAS.	*615-50-9*	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		9,70 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0077 - 1,0177	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		35.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

SECTION 12. Ecological information. ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

SECTION 15. Regulatory information. ... / >>

140-11-4 benzyl acetate

New York:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

California:
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63053**
Product name **MASK with VIBRACHROM 6,35**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated			
CAS.	*68439-49-6*	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)			
CAS.	*68439-49-6*	1 - 5	Eye irritation, category 2 H319
AMMONIA			
CAS.	*1336-21-6*	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE			
CAS.	*615-50-9*	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL			
CAS.	*108-46-3*	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

SECTION 3. Composition/information on ingredients. ... / >>

2-METHYLRESORCINOL
CAS. *608-25-3* 0.1 - 0.5
Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

4-AMINOPHENOL
CAS. *123-30-8* 0 - 0.25
Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

5-AMINO-O-CRESOL
CAS. *2835-95-2* 0.1 - 0.25
Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

SECTION 8. Exposure controls/personal protection. ... / >>

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,70 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0090 - 1,0190	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

5-AMINO-O-CRESOL
LD50 (Oral). 3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RESORCINOL

LC50 - for Fish.	29.5 mg/l/96h
EC50 - for Crustacea.	1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea.	0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish.	1.08 mg/l/96h
Chronic NOEC for Crustacea.	0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL

LC50 - for Fish.	0.82 mg/l/96h
EC50 - for Crustacea.	0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.062 mg/l/72h

AMMONIA

LC50 - for Fish.	47 mg/l/96h Channa punctata
EC50 - for Crustacea.	20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

5-AMINO-O-CRESOL
Solubility in water. 0.004112 mg/l a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water. -0.53 Log KOW

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

SECTION 12. Ecological information. ... / >>

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road

SECTION 16. Other information. ... / >>

- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

SECTION 16. Other information. ... / >>

Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63054**
Product name **MASK with VIBRACHROM 5.4**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		Conc. %*	Classification:
Alcohols, C16-18, ethoxylated			
CAS.	*68439-49-6*	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)			
CAS.	*68439-49-6*	1 - 5	Eye irritation, category 2 H319
AMMONIA			
CAS.	*1336-21-6*	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE			
CAS.	*615-50-9*	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
4-AMINOPHENOL			
CAS.	*123-30-8*	0.25 - 0.5	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

2-METHYLRESORCINOL

CAS.	*608-25-3*	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

RESORCINOL

CAS.	*108-46-3*	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures. ... / >>

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0050	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		35.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals

SECTION 16. Other information. ... / >>

- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63055**
Product name **MASK with VIBRACHROM 7,4**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %*	Classification:
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
4-AMINOPHENOL		
CAS. 123-30-8	0.5 - 1	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
5-AMINO-O-CRESOL		
CAS. 2835-95-2	0.25 - 0.5	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE

CAS.	*615-50-9*	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		yellow to orange	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0250	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		30.000,0000 - 120.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

5-AMINO-O-CRESOL
LD50 (Oral). 3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

5-AMINO-O-CRESOL
Solubility in water. 0.004112 mg/l a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

SECTION 12. Ecological information. ... / >>

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water. -0.53 Log KOW

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

SECTION 15. Regulatory information. ... / >>

140-11-4 benzyl acetate

New York:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

California:
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63056**
Product name **MASK WITH VIBRACHROM 8,44**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
4-AMINOPHENOL		
CAS. 123-30-8	0.5 - 1	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

5-AMINO-O-CRESOL
CAS. *2835-95-2* 0.5 - 1 Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		30.000,00 - 280.000,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9950 - 1,0050	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

5-AMINO-O-CRESOL
LD50 (Oral). 3600 mg/kg rat

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

5-AMINO-O-CRESOL
Solubility in water. 0.004112 mg/l a 20°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water. -0.53 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

California:

SECTION 15. Regulatory information. ... / >>

141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)

SECTION 16. Other information. ... / >>

- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 03 / 07 / 08 / 09 / 11 / 12 / 15 / 16.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63057**
Product name **MASK with VIBRACHROM 9,04**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
4-CHLORORESORCINOL		
CAS. 95-88-5	0.1 - 0.5	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Vapour density	Not available.
Relative density.	0,9950 - 1,0350 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	40.000,0000 - 120.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

4-CHLORORESORCINOL: Irritante per gli occhi e la pelle - pericolo di gravi lesioni oculari.
Sensibilizzante per la pelle.
STOT - Esposizione ripetuta: NOAEL 70 mg/kg/d

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

SECTION 11. Toxicological information. ... / >>

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

4-CHLORORESORCINOL
LD50 (Oral). 370 mg/kg rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

4-CHLORORESORCINOL
Solubility in water. > 100000 mg/l

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

California:

SECTION 15. Regulatory information. ... / >>

141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act

SECTION 16. Other information. ... / >>

- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63058**
Product name **MASK with VIBRACHROM 4,45**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated			
CAS.	*68439-49-6*	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)			
CAS.	*68439-49-6*	1 - 5	Eye irritation, category 2 H319
AMMONIA			
CAS.	*1336-21-6*	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE			
CAS.	*615-50-9*	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
4-AMINOPHENOL			
CAS.	*123-30-8*	0.25 - 0.5	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

RESORCINOL
CAS. *108-46-3* 0.1 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

5-AMINO-O-CRESOL
CAS. *2835-95-2* 0.1 - 0.25 Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures. ... / >>

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0125 - 1,0225	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

5-AMINO-O-CRESOL
LD50 (Oral). 3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

5-AMINO-O-CRESOL
Solubility in water. 0.004112 mg/l a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water. -0.53 Log KOW

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals

SECTION 16. Other information. ... / >>

- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63059**
Product name **MASK with VIBRACHROM 6,46**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %*	Classification:
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
5-AMINO-O-CRESOL		
CAS. 2835-95-2	0.5 - 1	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
4-AMINOPHENOL		
CAS. 123-30-8	0.25 - 0.5	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS. *615-50-9* 0.1 - 0.5 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
CAS. *155601-30-2* 0.1 - 0.5 Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

RESORCINOL
CAS. *108-46-3* 0.1 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

SECTION 8. Exposure controls/personal protection. ... / >>

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9995 - 1,0095	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		35.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

5-AMINO-O-CRESOL
LD50 (Oral). 3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LD50 (Oral). > 2000 mg/kg Rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RESORCINOL

LC50 - for Fish.	29.5 mg/l/96h
EC50 - for Crustacea.	1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea.	0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LC50 - for Fish.	1.08 mg/l/96h
Chronic NOEC for Crustacea.	0.63 mg/l 21d Daphnia magna

1-Hydroxyethyl-4,5-diaminopyrazole sulfate

LC50 - for Fish.	> 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea.	11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	5.33 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish.	> 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea.	< 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants.	1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

4-AMINOPHENOL

LC50 - for Fish.	0.82 mg/l/96h
EC50 - for Crustacea.	0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.062 mg/l/72h

AMMONIA

LC50 - for Fish.	47 mg/l/96h Channa punctata
EC50 - for Crustacea.	20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

5-AMINO-O-CRESOL
Solubility in water. 0.004112 mg/l a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
NOT rapidly biodegradable.

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water. -0.53 Log KOW

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

4-AMINOPHENOL

SECTION 12. Ecological information. ... / >>

Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

SECTION 15. Regulatory information. ... / >>

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63060**
Product name **MASK with VIBRACHROM 8,46**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %*	Classification:
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
5-AMINO-O-CRESOL		
CAS. 2835-95-2	0.5 - 1	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
4-AMINOPHENOL		
CAS. 123-30-8	0.25 - 0.5	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
CAS. *155601-30-2* 0.1 - 0.5 Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

2-METHYL-p-PHENYLENEDIAMINE SULFATE
CAS. *615-50-9* 0.1 - 0.5 Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

RESORCINOL
CAS. *108-46-3* 0.1 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

SECTION 8. Exposure controls/personal protection. ... / >>

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0102 - 1,0202	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

SECTION 10. Stability and reactivity. ... / >>

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

5-AMINO-O-CRESOL
LD50 (Oral). 3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LD50 (Oral). > 2000 mg/kg Rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RESORCINOL	
LC50 - for Fish.	29.5 mg/l/96h
EC50 - for Crustacea.	1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea.	0.32 mg/l
2-METHYL-p-PHENYLENEDIAMINE SULFATE	
LC50 - for Fish.	1.08 mg/l/96h
Chronic NOEC for Crustacea.	0.63 mg/l 21d Daphnia magna
1-Hydroxyethyl-4,5-diaminopyrazole sulfate	
LC50 - for Fish.	> 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea.	11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	5.33 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish.	> 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea.	< 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants.	1.8 mg/l Pseudokirchnerella subcapitata (growth rate)
4-AMINOPHENOL	
LC50 - for Fish.	0.82 mg/l/96h
EC50 - for Crustacea.	0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.062 mg/l/72h
AMMONIA	
LC50 - for Fish.	47 mg/l/96h Channa punctata
EC50 - for Crustacea.	20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL	
Solubility in water.	1400 mg/l
Rapidly biodegradable.	
5-AMINO-O-CRESOL	
Solubility in water.	0.004112 mg/l a 20°C
2-METHYL-p-PHENYLENEDIAMINE SULFATE	
Solubility in water.	> 1000 mg/l
1-Hydroxyethyl-4,5-diaminopyrazole sulfate	
NOT rapidly biodegradable.	
4-AMINOPHENOL	
Solubility in water.	> 1000 mg/l
AMMONIA	
Biodegradability: Information not available.	

12.3. Bioaccumulative potential.

RESORCINOL	
Partition coefficient: n-octanol/water.	0.85 Log Pow 25°
5-AMINO-O-CRESOL	
Partition coefficient: n-octanol/water.	-0.53 Log KOW
2-METHYL-p-PHENYLENEDIAMINE SULFATE	
Partition coefficient: n-octanol/water.	0.74 Log KOW
4-AMINOPHENOL	

SECTION 12. Ecological information. ... / >>

Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

SECTION 15. Regulatory information. ... / >>

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63061**
Product name **MASK with VIBRACHROM 3,51**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %*	Classification:
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
1-Hydroxyethyl-4,5-diaminopyrazole sulfate		
CAS. 155601-30-2	0.1 - 0.5	Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM
Colour	white to beige / yellow
Odour	STD. REF.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		9,50 - 10,50	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0094 - 1,0194	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		35.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LD50 (Oral). > 2000 mg/kg Rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LC50 - for Fish. > 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea. 11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 5.33 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish. > 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea. < 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
NOT rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

SECTION 15. Regulatory information. ... / >>

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.

SECTION 16. Other information. ... / >>

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"

SECTION 16. Other information. ... / >>

- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63062**
Product name **MASK with VIBRACHROM 7.51**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0023 - 1,0123	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		35.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 Glycerol
141-43-5 ETHANOLAMINE

SECTION 15. Regulatory information. ... / >>

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4

SECTION 16. Other information. ... / >>

Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety

SECTION 16. Other information. ... / >>

- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63063**
Product name **MASK WITH VIBRACHROM 4,55**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
1-Hydroxyethyl-4,5-diaminopyrazole sulfate		
CAS. 155601-30-2	0.5 - 1	Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
5-AMINO-O-CRESOL		
CAS. 2835-95-2	0.1 - 0.25	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,70 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,0082 - 1,0182 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	35.000,0000 - 100.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

5-AMINO-O-CRESOL

LD50 (Oral).	3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

SECTION 11. Toxicological information. ... / >>

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LD50 (Oral). > 2000 mg/kg Rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LC50 - for Fish. > 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea. 11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 5.33 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish. > 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea. < 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

5-AMINO-O-CRESOL
Solubility in water. 0.004112 mg/l a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
NOT rapidly biodegradable.

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water. -0.53 Log KOW

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

California:
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

SECTION 15. Regulatory information. ... / >>

7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals

SECTION 16. Other information. ... / >>

- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63064**
Product name **MASK with VIBRACHROM 5,56**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %*	Classification:
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
1-Hydroxyethyl-4,5-diaminopyrazole sulfate		
CAS. 155601-30-2	1 - 3	Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10,

SECTION 3. Composition/information on ingredients. ... / >>

Hazardous to the aquatic environment, chronic toxicity, category 1 H410

5-AMINO-O-CRESOL
CAS. *2835-95-2* 0.1 - 0.25 Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0073 - 1,0173	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

5-AMINO-O-CRESOL
LD50 (Oral). 3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LD50 (Oral). > 2000 mg/kg Rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LC50 - for Fish. > 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea. 11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 5.33 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish. > 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea. < 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

5-AMINO-O-CRESOL
Solubility in water. 0.004112 mg/l a 20°C

SECTION 12. Ecological information. ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
NOT rapidly biodegradable.

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water. -0.53 Log KOW

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

SECTION 14. Transport information. ... / >>

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:

SECTION 15. Regulatory information. ... / >>

56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4

SECTION 16. Other information. ... / >>

H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63065**
Product name **MASK with VIBRACHROM 4,06**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated			
CAS.	*68439-49-6*	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)			
CAS.	*68439-49-6*	1 - 5	Eye irritation, category 2 H319
AMMONIA			
CAS.	*1336-21-6*	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE			
CAS.	*615-50-9*	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL			
CAS.	*108-46-3*	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

SECTION 3. Composition/information on ingredients. ... / >>

4-AMINOPHENOL

CAS. *123-30-8* 0.25 - 0.5 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR

SECTION 8. Exposure controls/personal protection. ... / >>

1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,50 - 10,50		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0111 - 1,0211	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

SECTION 12. Ecological information. ... / >>

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

SECTION 15. Regulatory information. ... / >>

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.

SECTION 16. Other information. ... / >>

- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63066**
Product name **MASK with VIBRACHROM 6,06**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		Conc. %*	Classification:
Alcohols, C16-18, ethoxylated			
CAS.	*68439-49-6*	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)			
CAS.	*68439-49-6*	1 - 5	Eye irritation, category 2 H319
AMMONIA			
CAS.	*1336-21-6*	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE			
CAS.	*615-50-9*	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
5-AMINO-O-CRESOL			
CAS.	*2835-95-2*	0.5 - 1	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

4-AMINOPHENOL
CAS. 123-30-8 0.5 - 1 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

RESORCINOL
CAS. 108-46-3 0.1 - 0.5 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures. ... / >>

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION

SECTION 8. Exposure controls/personal protection. ... / >>

Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0085 - 1,0185	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

SECTION 10. Stability and reactivity. ... / >>

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

5-AMINO-O-CRESOL
LD50 (Oral). 3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

5-AMINO-O-CRESOL
Solubility in water. 0.004112 mg/l a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water. -0.53 Log KOW

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE

SECTION 15. Regulatory information. ... / >>

140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals

SECTION 16. Other information. ... / >>

- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63067**
Product name **MASK with VIBRACHROM 5.61**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %*	Classification:
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
5-AMINO-O-CRESOL		
CAS. 2835-95-2	0.5 - 1	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

4-AMINOPHENOL

CAS.	*123-30-8*	0.25 - 0.5	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0112 - 1,0212	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		35.000,0000 - 100.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

5-AMINO-O-CRESOL
LD50 (Oral). 3600 mg/kg rat

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

5-AMINO-O-CRESOL
Solubility in water. 0.004112 mg/l a 20°C

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

SECTION 12. Ecological information. ... / >>

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water. -0.53 Log KOW

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

SECTION 15. Regulatory information. ... / >>

140-11-4 benzyl acetate

New York:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

California:
141-43-5 ETHANOLAMINE
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

SECTION 16. Other information. ... / >>

H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

SECTION 16. Other information. ... / >>

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**63068**
Product name	**MASK with VIBRACHROM 6,66**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**professional use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %*	Classification:
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
1-Hydroxyethyl-4,5-diaminopyrazole sulfate		
CAS. 155601-30-2	1 - 3	Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
5-AMINO-O-CRESOL		
CAS. 2835-95-2	0.25 - 0.5	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

4-amino-m-cresol
CAS. *2835-99-6* 0.1 - 0.25 Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

4-AMINOPHENOL
CAS. *123-30-8* 0 - 0.25 Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures. ... / >>

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

SECTION 8. Exposure controls/personal protection. ... / >>

ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		9,70 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0140 - 1,0240	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		35.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

SECTION 11. Toxicological information. ... / >>

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

5-AMINO-O-CRESOL
LD50 (Oral). 3600 mg/kg rat

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

4-amino-m-cresol
LD50 (Oral). 1200 mg/kg Rat

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LD50 (Oral). > 2000 mg/kg Rat

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

4-amino-m-cresol
LC50 - for Fish. 0.94 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 0.74 mg/l/48h Daphnia magna

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LC50 - for Fish. > 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea. 11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 5.33 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish. > 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea. < 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

5-AMINO-O-CRESOL
Solubility in water. 0.004112 mg/l a 20°C

SECTION 12. Ecological information. ... / >>

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
NOT rapidly biodegradable.

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water. -0.53 Log KOW

4-amino-m-cresol
Partition coefficient: n-octanol/water. 0.51 20°C

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

SECTION 16. Other information. ... / >>

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act

SECTION 16. Other information. ... / >>

- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63069**
Product name **MASK with VIBRACHROM 7,64**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
1-Hydroxyethyl-4,5-diaminopyrazole sulfate		
CAS. 155601-30-2	0.5 - 1	Serious eye damage, category 1 H318, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
5-AMINO-O-CRESOL		
CAS. 2835-95-2	0.1 - 0.25	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

4-amino-m-cresol

CAS.	*2835-99-6*	0.1 - 0.25	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		white to beige / yellow	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0037 - 1,0137	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

5-AMINO-O-CRESOL
LD50 (Oral). 3600 mg/kg rat

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

4-amino-m-cresol
LD50 (Oral). 1200 mg/kg Rat

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LD50 (Oral). > 2000 mg/kg Rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

4-amino-m-cresol
LC50 - for Fish. 0.94 mg/l/96h Brachydanio rerio
EC50 - for Crustacea. 0.74 mg/l/48h Daphnia magna

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
LC50 - for Fish. > 86.23 mg/l/96h Danio rerio (mortality)
EC50 - for Crustacea. 11.12 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 5.33 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish. > 86.23 mg/l Danio rerio
Chronic NOEC for Crustacea. < 6.14 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 1.8 mg/l Pseudokirchnerella subcapitata (growth rate)

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

5-AMINO-O-CRESOL
Solubility in water. 0.004112 mg/l a 20°C

1-Hydroxyethyl-4,5-diaminopyrazole sulfate
NOT rapidly biodegradable.

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

5-AMINO-O-CRESOL
Partition coefficient: n-octanol/water. -0.53 Log KOW

4-amino-m-cresol

SECTION 12. Ecological information. ... / >>

Partition coefficient: n-octanol/water. 0.51 20°C

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
140-11-4 benzyl acetate

New Jersey:
56-81-5 Glycerol
141-43-5 ETHANOLAMINE
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)
140-11-4 benzyl acetate

New York:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:

SECTION 15. Regulatory information. ... / >>

56-81-5	Glycerol
141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	ETHANOLAMINE
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008

SECTION 16. Other information. ... / >>

- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63070**
Product name **MASK with VIBRACHROM 6,71**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0083 - 1,0183	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 120.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website

SECTION 16. Other information. ... / >>

- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63071**
Product name **MASK with VIBRACHROM 10.7**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,00 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Vapour density	Not available.
Relative density.	0,9950 - 1,0050 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	40.000,0000 - 100.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

ALCOHOLS, c16-18

LD50 (Oral).	> 2000 mg/kg rat

4-AMINOPHENOL

LD50 (Oral).	671 mg/kg rat
LD50 (Dermal).	> 5000 mg/kg rat
LC50 (Inhalation).	> 3.4 mg/l rat

SECTION 11. Toxicological information. ... / >>

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

SECTION 15. Regulatory information. ... / >>

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
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- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level

SECTION 16. Other information. ... / >>

- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63072**
Product name **MASK with VIBRACHROM 5,73**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	1 - 5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,70 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0090 - 1,0190	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 120.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
56-81-5 GLICEROL
141-43-5 2-AMINOETHANOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:
108-46-3 RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
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- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website

SECTION 16. Other information. ... / >>

- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63073**
Product name **MASK with VIBRACHROM 6,73**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.5 - 1	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
RESORCINOL		
CAS. 108-46-3	0.1 - 0.5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

RESORCINOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	45	10	0	0
CAL/OSHA	USA	45	10	90	20
NIOSH	USA	45	10	90	20

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,70 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0010 - 1,0510	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		40.000,0000 - 120.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.

AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

RESORCINOL
LD50 (Oral). 301 mg/kg rat
LD50 (Dermal). 3360 mg/Kg rabbit

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

RESORCINOL
LC50 - for Fish. 29.5 mg/l/96h
EC50 - for Crustacea. 1.04 mg/l/48h Daphnia magna
Chronic NOEC for Crustacea. 0.32 mg/l

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

RESORCINOL
Solubility in water. 1400 mg/l
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

RESORCINOL
Partition coefficient: n-octanol/water. 0.85 Log Pow 25°

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL

SECTION 15. Regulatory information. ... / >>

56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

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- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
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Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63074**
Product name **MASK WITH VIBRACHROM 7,73**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Additional hazards.

Contact with acids liberates toxic gas.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %*	Classification:
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
If the product may or must come into contact or react with acids, suitable technical and/or organisational measures should be taken to prevent the development of toxic and/or inflammable gases.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		white to beige / yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,70 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,0020 - 1,0120 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	40.000,0000 - 130.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.
This product generates toxic harmful gases upon contact with acids.

2-METHYL-p-PHENYLENEDIAMINE SULFATE

LD50 (Oral).	102 mg/kg
LC50 (Inhalation).	1.77 mg/l/4h

SECTION 11. Toxicological information. ... / >>

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

SECTION 12. Ecological information. ... / >>

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:

108-46-3	RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA

SECTION 15. Regulatory information. ... / >>

1310-73-2 SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
56-81-5	GLICEROL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
141-43-5	2-AMINOETHANOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 07 / 08 / 09 / 11 / 12 / 15 / 16.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63075**
Product name **MASK WITH VIBRACHROM 12,01**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

SECTION 2. Hazards identification. ... / >>

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

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Disposal:

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2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
AMMONIA		
CAS. 1336-21-6	3 - 5	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

SECTION 8. Exposure controls/personal protection. ... / >>

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		LUCID CREAM	
Colour		FROM WHITE TO BEIGE	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,40 - 11,40	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9698 - 0,9748	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		80.000,0000 - 150.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL: it is hygroscopic and stable under normal conditions; at high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.

SECTION 10. Stability and reactivity. ... / >>

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.
AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
1,2-PROPANEDIOL: carbon oxides.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

OLEIC ACID
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

GENEROL R
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rabbit

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

GLICOLE PROPILENICO
LD50 (Oral). 22000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg rabbit
LC50 (Inhalation). > 317042 mg/l rabbit

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

OLEIC ACID

LC50 - for Fish.	> 100 mg/l/96h dato fornito da Huwell

GLICOLE PROPILENICO

LC50 - for Fish.	> 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants.	24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea.	13020 mg/l Ceriodaphnia sp, (reproduction or growth_7 d)

AMMONIA

LC50 - for Fish.	47 mg/l/96h Channa punctata
EC50 - for Crustacea.	20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

OLEIC ACID
Rapidly biodegradable.

GLICOLE PROPILENICO
Rapidly biodegradable.

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

GLICOLE PROPILENICO

Partition coefficient: n-octanol/water.	-1.07 Log KOW
BCF.	0.09 stimato

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

SECTION 15. Regulatory information. ... / >>

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

57-55-6	GLICOLE PROPILENICO
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

57-55-6	GLICOLE PROPILENICO
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	OLEIC ACID
57-55-6	GLICOLE PROPILENICO
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

SECTION 16. Other information. ... / >>

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63076**
Product name **MASK WITH VIBRACHROM 12,11**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

SECTION 2. Hazards identification. ... / >>

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
AMMONIA		
CAS. 1336-21-6	3 - 5	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

SECTION 8. Exposure controls/personal protection. ... / >>

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		WHITE TO BEIGE	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		9,70 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9687 - 0,9787	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		60.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL: it is hygroscopic and stable under normal conditions; at high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.

SECTION 10. Stability and reactivity. ... / >>

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.
AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
1,2-PROPANEDIOL: carbon oxides.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

OLEIC ACID
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

GENEROL R
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rabbit

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

GLICOLE PROPILENICO
LD50 (Oral). 22000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg rabbit
LC50 (Inhalation). > 317042 mg/l rabbit

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

OLEIC ACID

LC50 - for Fish.	> 100 mg/l/96h dato fornito da Huwell

GLICOLE PROPILENICO

LC50 - for Fish.	> 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants.	24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea.	13020 mg/l Ceriodaphnia sp, (reproduction or growth_7 d)

AMMONIA

LC50 - for Fish.	47 mg/l/96h Channa punctata
EC50 - for Crustacea.	20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

OLEIC ACID
Rapidly biodegradable.

GLICOLE PROPILENICO
Rapidly biodegradable.

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

GLICOLE PROPILENICO

Partition coefficient: n-octanol/water.	-1.07 Log KOW
BCF.	0.09 stimato

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

SECTION 15. Regulatory information. ... / >>

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

57-55-6	GLICOLE PROPILENICO
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

57-55-6	GLICOLE PROPILENICO
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	OLEIC ACID
57-55-6	GLICOLE PROPILENICO
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

SECTION 16. Other information. ... / >>

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63077**
Product name **MASK WITH VIBRACHROM 12,21**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

SECTION 2. Hazards identification. ... / >>

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

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Disposal:

--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
AMMONIA		
CAS. 1336-21-6	3 - 5	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.

Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

SECTION 8. Exposure controls/personal protection. ... / >>

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		WHITE TO BEIGE	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		9,70 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9697 - 0,9797	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		60.000,0000 - 180.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL: it is hygroscopic and stable under normal conditions; at high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.

SECTION 10. Stability and reactivity. ... / >>

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.
AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
1,2-PROPANEDIOL: carbon oxides.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

OLEIC ACID
LD50 (Oral). > 5000 mg/kg dato fornito da Huwell

GENEROL R
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rabbit

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

GLICOLE PROPILENICO
LD50 (Oral). 22000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg rabbit
LC50 (Inhalation). > 317042 mg/l rabbit

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

SECTION 12. Ecological information. ... / >>

OLEIC ACID

LC50 - for Fish.	> 100 mg/l/96h dato fornito da Huwell

GLICOLE PROPILENICO

LC50 - for Fish.	> 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea.	18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants.	24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea.	13020 mg/l Ceriodaphnia sp, (reproduction or growth_7 d)

AMMONIA

LC50 - for Fish.	47 mg/l/96h Channa punctata
EC50 - for Crustacea.	20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

OLEIC ACID
Rapidly biodegradable.

GLICOLE PROPILENICO
Rapidly biodegradable.

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

GLICOLE PROPILENICO

Partition coefficient: n-octanol/water.	-1.07 Log KOW
BCF.	0.09 stimato

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

SECTION 15. Regulatory information. ... / >>

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

57-55-6	GLICOLE PROPILENICO
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

57-55-6	GLICOLE PROPILENICO
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	OLEIC ACID
57-55-6	GLICOLE PROPILENICO
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

SECTION 16. Other information. ... / >>

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.

SECTION 16. Other information. ... / >>

- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63078**
Product name **MASK WITH VIBRACHROM 12,13**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
AMMONIA		
CAS. 1336-21-6	3 - 5	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYLRESORCINOL		
CAS. 608-25-3	0.1 - 0.5	Acute toxicity, category 3 H301, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Skin sensitization, category 1 H317
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

SECTION 4. First aid measures. ... / >>

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		WHITE TO BEIGE		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		9,70 - 11,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Vapour density	Not available.
Relative density.	0,9687 - 0,9787 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	60.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL: it is hygroscopic and stable under normal conditions; at high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.
SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.
AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
1,2-PROPANEDIOL: carbon oxides.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

OLEIC ACID

LD50 (Oral).	> 5000 mg/kg dato fornito da Huwell

GENEROL R

LD50 (Oral).	> 5000 mg/kg rat
LD50 (Dermal).	> 5000 mg/kg rabbit

SECTION 11. Toxicological information. ... / >>

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

GLICOLE PROPILENICO
LD50 (Oral). 22000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg rabbit
LC50 (Inhalation). > 317042 mg/l rabbit

2-METHYLRESORCINOL
LD50 (Oral). 200 mg/kg

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

OLEIC ACID
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

GLICOLE PROPILENICO
LC50 - for Fish. > 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. 18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants. 24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea. 13020 mg/l Ceriodaphnia sp, (reproduction or growth_7 d)

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

OLEIC ACID
Rapidly biodegradable.

GLICOLE PROPILENICO
Rapidly biodegradable.

2-METHYLRESORCINOL
Solubility in water. 263000 mg/l 25°C

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

SECTION 12. Ecological information. ... / >>

12.3. Bioaccumulative potential.

GLICOLE PROPILENICO
Partition coefficient: n-octanol/water. -1.07 Log KOW
BCF. 0.09 stimato

2-METHYLRESORCINOL
Partition coefficient: n-octanol/water. 1.7 Log KOW

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

1336-21-6	AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

EPCRA 313 TRI:

1336-21-6	AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

Minnesota:

57-55-6	GLICOLE PROPILENICO
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

57-55-6	GLICOLE PROPILENICO
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

SECTION 15. Regulatory information. ... / >>

New York:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

112-80-1	OLEIC ACID
57-55-6	GLICOLE PROPILENICO
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:

SECTION 16. Other information. ... / >>

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.

SECTION 16. Other information. ... / >>

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63079**
Product name **MASK WITH VIBRACHROM 12,71**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
AMMONIA		
CAS. 1336-21-6	3 - 5	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
2-METHYL-p-PHENYLENEDIAMINE SULFATE		
CAS. 615-50-9	0.1 - 0.5	Acute toxicity, category 3 H301, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
4-AMINOPHENOL		
CAS. 123-30-8	0 - 0.25	Germ cell mutagenicity, category 2 H341, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

SECTION 4. First aid measures. ... / >>

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. In order to avoid the risk of fires and explosions, never use compressed air when handling. Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters.
Avoid leakage of the product into the environment. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Keep the product in clearly labelled containers. Keep containers well sealed. Store in a ventilated and dry place, far away from sources of ignition. Avoid violent blows. Avoid overheating. Avoid contact with water.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM		
Colour		WHITE TO BEIGE		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		10,40 - 11,40		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Vapour density	Not available.
Relative density.	0,9736 - 0,9836 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	60.000,0000 - 180.000,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL: it is hygroscopic and stable under normal conditions; at high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.
SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

1,2-PROPANEDIOL: can react dangerously with: acid chlorides, acid anhydrides and oxidising agents.
AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
1,2-PROPANEDIOL: carbon oxides.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

OLEIC ACID

LD50 (Oral).	> 5000 mg/kg dato fornito da Huwell

GENEROL R

LD50 (Oral).	> 5000 mg/kg rat
LD50 (Dermal).	> 5000 mg/kg rabbit

SECTION 11. Toxicological information. ... / >>

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LD50 (Oral). 102 mg/kg
LC50 (Inhalation). 1.77 mg/l/4h

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

GLICOLE PROPILENICO
LD50 (Oral). 22000 mg/kg Rat
LD50 (Dermal). > 2000 mg/kg rabbit
LC50 (Inhalation). > 317042 mg/l rabbit

4-AMINOPHENOL
LD50 (Oral). 671 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rat
LC50 (Inhalation). > 3.4 mg/l rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Carcinogenicity Assessment:
108-46-3 RESORCINOL
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

OLEIC ACID
LC50 - for Fish. > 100 mg/l/96h dato fornito da Huwell

2-METHYL-p-PHENYLENEDIAMINE SULFATE
LC50 - for Fish. 1.08 mg/l/96h
Chronic NOEC for Crustacea. 0.63 mg/l 21d Daphnia magna

GLICOLE PROPILENICO
LC50 - for Fish. > 40613 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. 18340 mg/l/48h Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants. 24200 mg/l/72h Selenastrum capricornutum (growth rate)
Chronic NOEC for Crustacea. 13020 mg/l Ceriodaphnia sp, (reproduction or growth_7 d)

4-AMINOPHENOL
LC50 - for Fish. 0.82 mg/l/96h
EC50 - for Crustacea. 0.182 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.062 mg/l/72h

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

OLEIC ACID
Rapidly biodegradable.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Solubility in water. > 1000 mg/l

SECTION 12. Ecological information. ... / >>

GLICOLE PROPILENICO
Rapidly biodegradable.

4-AMINOPHENOL
Solubility in water. > 1000 mg/l

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.

2-METHYL-p-PHENYLENEDIAMINE SULFATE
Partition coefficient: n-octanol/water. 0.74 Log KOW

GLICOLE PROPILENICO
Partition coefficient: n-octanol/water. -1.07 Log KOW
BCF. 0.09 stimato

4-AMINOPHENOL
Partition coefficient: n-octanol/water. -0.09 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

SECTION 14. Transport information. ... / >>

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
108-46-3 RESORCINOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
108-46-3 RESORCINOL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE
7681-57-4 SODIUM BISULPHITE
7775-14-6 SODIUM DITHIONITE (Sulfites)

Minnesota:

SECTION 15. Regulatory information. ... / >>

108-46-3	RESORCINOL
57-55-6	GLICOLE PROPILENICO
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

New Jersey:

108-46-3	RESORCINOL
57-55-6	GLICOLE PROPILENICO
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)
140-11-4	benzyl acetate

New York:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE

Pennsylvania:

108-46-3	RESORCINOL
112-80-1	OLEIC ACID
57-55-6	GLICOLE PROPILENICO
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
7775-14-6	SODIUM DITHIONITE (Sulfites)

California:

108-46-3	RESORCINOL
1336-21-6	AMMONIA
1310-73-2	SODIUM HYDROXIDE
7681-57-4	SODIUM BISULPHITE
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Muta. 2	Germ cell mutagenicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2

SECTION 16. Other information. ... / >>

Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H341	Suspected of causing genetic defects.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
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- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website

SECTION 16. Other information. ... / >>

- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **63080**
Product name **MASK WITH VIBRACHROM 000**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **PROFESSIONAL USE**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

SECTION 2. Hazards identification. ... / >>

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	1 - 5	Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Alcohols, C16-18, ethoxylated (50 OE)		
CAS. 68439-49-6	1 - 5	Eye irritation, category 2 H319
AMMONIA		
CAS. 1336-21-6	1 - 3	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIA

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	17	25	24	35

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

SECTION 8. Exposure controls/personal protection. ... / >>

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		WHITE TO BEIGE	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		10,00 - 11,00	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9990 - 1,0090	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		40.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

SECTION 10. Stability and reactivity. ... / >>

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

AMMONIA: risk of explosion on contact with strong acids and iodine. Can react dangerously with strong bases .

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
AMMONIA: silver, lead, zinc and their salts; hydrochloric acid, nitric acid, oleum, halogens, acrolein, nitromethane and acrylic acid.

10.6. Hazardous decomposition products.
AMMONIA: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

AMMONIA
LD50 (Oral). 350 mg/kg Rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

AMMONIA
LC50 - for Fish. 47 mg/l/96h Channa punctata
EC50 - for Crustacea. 20 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

AMMONIA
Biodegradability: Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

SECTION 12. Ecological information. ... / >>

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
1336-21-6 AMMONIA

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
1336-21-6 AMMONIA

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 GLICEROL
1336-21-6 AMMONIA
1310-73-2 SODIUM HYDROXIDE

Minnesota:
56-81-5 GLICEROL
1310-73-2 SODIUM HYDROXIDE
140-11-4 benzyl acetate

New Jersey:
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1336-21-6 AMMONIA
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New York:
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1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
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Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

SECTION 15. Regulatory information. ... / >>

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None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

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H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
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H335	May cause respiratory irritation.
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- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit

SECTION 16. Other information. ... / >>

- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- 6 NYCRR part 597
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This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 05 / 08 / 09 / 11 / 12 / 15 / 16.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **66041**
Product name **ACTIVATION SOURCE 7VOL. 900ML**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

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Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

SECTION 2. Hazards identification. ... / >>

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	1 - 3	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335
Alcohols, C12-14, ethoxylated		
CAS. 68439-50-9	0.5 - 1	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		WHITE		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		2,0 -3,0		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		600 - 1200		

SECTION 9. Physical and chemical properties. ... / >>

Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

HYDROGEN PEROXIDE SOLUTION

LD50 (Oral).	1193 mg/kg Rat at the concentration of 35%

Alcohols, C12-14, ethoxylated

LD50 (Oral).	> 300 mg/kg

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

Alcohols, C12-14, ethoxylated

LC50 - for Fish.	> 1 mg/l/96h

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

Alcohols, C12-14, ethoxylated
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

Alcohols, C12-14, ethoxylated
Partition coefficient: n-octanol/water. 4.75

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
64-19-7 ACETIC ACID

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Minnesota:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New Jersey:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New York:

SECTION 15. Regulatory information. ... / >>

7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Pennsylvania:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

California:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)

SECTION 16. Other information. ... / >>

- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 03 / 13 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **66042**
Product name **ACTIVATION SOURCE 10VOL. 900ML**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

SECTION 2. Hazards identification. ... / >>

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	3 - 5	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335
Alcohols, C12-14, ethoxylated		
CAS. 68439-50-9	0.5 - 1	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		WHITE		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		2,0 -3,0		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		600 - 1200		

SECTION 9. Physical and chemical properties. ... / >>

Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

HYDROGEN PEROXIDE SOLUTION

LD50 (Oral).	1193 mg/kg Rat at the concentration of 35%

Alcohols, C12-14, ethoxylated

LD50 (Oral).	> 300 mg/kg

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

Alcohols, C12-14, ethoxylated

LC50 - for Fish.	> 1 mg/l/96h

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

Alcohols, C12-14, ethoxylated
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

Alcohols, C12-14, ethoxylated
Partition coefficient: n-octanol/water. 4.75

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
64-19-7 ACETIC ACID

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Minnesota:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New Jersey:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New York:

SECTION 15. Regulatory information. ... / >>

7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Pennsylvania:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

California:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)

SECTION 16. Other information. ... / >>

- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 03 / 13 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **66043**
Product name **ACTIVATION SOURCE 20VOL. 900ML**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1A	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H314 Causes severe skin burns and eye damage.

Precautionary statements:
Prevention:
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / clothing and eye / face protection.
Response:

SECTION 2. Hazards identification. ... / >>

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P363	Wash contaminated clothing before reuse.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	5 - 9	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335
Alcohols, C12-14, ethoxylated		
CAS. 68439-50-9	0.5 - 1	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

SECTION 5. Firefighting measures. ... / >>

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		WHITE		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		2,0 -3,0		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		600 - 1200		

SECTION 9. Physical and chemical properties. ... / >>

Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

HYDROGEN PEROXIDE SOLUTION

LD50 (Oral).	1193 mg/kg Rat at the concentration of 35%

Alcohols, C12-14, ethoxylated

LD50 (Oral).	> 300 mg/kg

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

Alcohols, C12-14, ethoxylated

LC50 - for Fish.	> 1 mg/l/96h

SECTION 12. Ecological information. ... / >>

12.2. Persistence and degradability.

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

Alcohols, C12-14, ethoxylated
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

Alcohols, C12-14, ethoxylated
Partition coefficient: n-octanol/water. 4.75

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
64-19-7 ACETIC ACID

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Minnesota:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New Jersey:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

New York:

SECTION 15. Regulatory information. ... / >>

7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Pennsylvania:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

California:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
64-19-7 ACETIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
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SECTION 16. Other information. ... / >>

- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
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- TWA: Time-weighted average exposure limit
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- WHMIS: Workplace Hazardous Materials Information System.

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- 6 NYCRR part 597
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- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
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- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 03 / 13 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **66046**
Product name **ACTIVATOR 10**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

SECTION 2. Hazards identification. ... / >>

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	3 - 5	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

SECTION 5. Firefighting measures. ... / >>

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:

SECTION 8. Exposure controls/personal protection. ... / >>

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM	
Colour		white	
Odour		REF.STD	
Odour threshold.		Not available.	
pH.		2,4000 - 2,7000	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		Not available.	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

HYDROGEN PEROXIDE SOLUTION
LD50 (Oral). 1193 mg/kg Rat
at the concentration of 35%

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

SECTION 12. Ecological information. ... / >>

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
7664-38-2 PHOSPHORIC ACID (Phosphorous compounds)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
7558-79-4 DISODIUM HYDROGENORTHOPHOSPHATE
7664-38-2 PHOSPHORIC ACID (Phosphorous compounds)

EPCRA 313 TRI:
No component(s) listed.

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Candadian WHMIS.
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STOT SE 3	Specific target organ toxicity - single exposure, category 3
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- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.

SECTION 16. Other information. ... / >>

- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
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- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

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The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
13 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **66047**
Product name **ACTIVATOR 20**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1A	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H314 Causes severe skin burns and eye damage.

Precautionary statements:
Prevention:
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / clothing and eye / face protection.
Response:

SECTION 2. Hazards identification. ... / >>

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P363	Wash contaminated clothing before reuse.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	5 - 9	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		white		
Odour		REF.STD		
Odour threshold.		Not available.		
pH.		2,4000 - 2,7000		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

HYDROGEN PEROXIDE SOLUTION
LD50 (Oral). 1193 mg/kg Rat
at the concentration of 35%

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 112(b):
7664-38-2 PHOSPHORIC ACID (Phosphorous compounds)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
7558-79-4 DISODIUM HYDROGENORTHOPHOSPHATE
7664-38-2 PHOSPHORIC ACID (Phosphorous compounds)

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
7558-79-4 DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1 HYDROGEN PEROXIDE SOLUTION
7664-38-2 PHOSPHORIC ACID (Phosphorous compounds)

Minnesota:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
7664-38-2 PHOSPHORIC ACID (Phosphorous compounds)

New Jersey:
7558-79-4 DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1 HYDROGEN PEROXIDE SOLUTION
7664-38-2 PHOSPHORIC ACID (Phosphorous compounds)

New York:
7558-79-4 DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1 HYDROGEN PEROXIDE SOLUTION
7664-38-2 PHOSPHORIC ACID (Phosphorous compounds)

Pennsylvania:
7558-79-4 DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1 HYDROGEN PEROXIDE SOLUTION
7664-38-2 PHOSPHORIC ACID (Phosphorous compounds)

SECTION 15. Regulatory information. ... / >>

California:

7558-79-4	DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1	HYDROGEN PEROXIDE SOLUTION
7664-38-2	PHOSPHORIC ACID (Phosphorous compounds)

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%

SECTION 16. Other information. ... / >>

- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
13 / 14.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **66048**
Product name **ACTIVATOR 30 VOL SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1A	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H314 Causes severe skin burns and eye damage.

Precautionary statements:
Prevention:
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / clothing and eye / face protection.
Response:

SECTION 2. Hazards identification. ... / >>

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P363	Wash contaminated clothing before reuse.
Storage:	
P405	Store locked up.
Disposal:	
P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	9 - 20	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

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4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		white		
Odour		REF.STD		
Odour threshold.		Not available.		
pH.		2,4000 - 2,7000		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9628 - 1,0628	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	1000 - 1800
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

HYDROGEN PEROXIDE SOLUTION
LD50 (Oral). 1193 mg/kg Rat
at the concentration of 35%

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 2984

14.2. UN proper shipping name.

ADR / RID: HYDROGEN PEROXIDE, AQUEOUS
IMDG: HYDROGEN PEROXIDE, AQUEOUS
IATA: HYDROGEN PEROXIDE, AQUEOUS

14.3. Transport hazard class(es).

ADR / RID: Class: 5.1 Label: 5.1

IMDG: Class: 5.1 Label: 5.1

IATA: Class: 5.1 Label: 5.1

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 50 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (E)
IMDG:	EMS: F-H, S-Q	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 555
	Pass.:	Maximum quantity: 2,5 L	Packaging instructions: 551
	Special Instructions:	-	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
7664-38-2 PHOSPHORIC ACID (Phosphorous compounds)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
7558-79-4 DISODIUM HYDROGENORTHOPHOSPHATE
7664-38-2 PHOSPHORIC ACID (Phosphorous compounds)

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

SECTION 15. Regulatory information. ... / >>

Massachussetts:

7558-79-4	DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1	HYDROGEN PEROXIDE SOLUTION
7664-38-2	PHOSPHORIC ACID (Phosphorous compounds)

Minnesota:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
7664-38-2	PHOSPHORIC ACID (Phosphorous compounds)

New Jersey:

7558-79-4	DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1	HYDROGEN PEROXIDE SOLUTION
7664-38-2	PHOSPHORIC ACID (Phosphorous compounds)

New York:

7558-79-4	DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1	HYDROGEN PEROXIDE SOLUTION
7664-38-2	PHOSPHORIC ACID (Phosphorous compounds)

Pennsylvania:

7558-79-4	DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1	HYDROGEN PEROXIDE SOLUTION
7664-38-2	PHOSPHORIC ACID (Phosphorous compounds)

California:

7558-79-4	DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1	HYDROGEN PEROXIDE SOLUTION
7664-38-2	PHOSPHORIC ACID (Phosphorous compounds)

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **66049**
Product name **ACTIVATOR 40 VOL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Skin corrosion, category 1A	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H314 Causes severe skin burns and eye damage.

Precautionary statements:
Prevention:
P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / clothing and eye / face protection.
Response:

SECTION 2. Hazards identification. ... / >>

P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P363	Wash contaminated clothing before reuse.

Storage:

P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
HYDROGEN PEROXIDE SOLUTION		
CAS. 7722-84-1	9 - 20	Oxidising liquid, category 1 H271, Acute toxicity, category 4 H302, Acute toxicity, category 4 H332, Skin corrosion, category 1A H314, Specific target organ toxicity - single exposure, category 3 H335

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

HYDROGEN PEROXIDE SOLUTION

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	1.4	1		
OSHA	USA	1.4	1		
CAL/OSHA	USA	1.4	1		
NIOSH	USA	1.4	1		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		white		
Odour		REF.STD		
Odour threshold.		Not available.		
pH.		2,3000 - 2,7000		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,976 - 1,076		Kg/l
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	1000 - 1800
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
Information not available.

10.2. Chemical stability.
Information not available.

10.3. Possibility of hazardous reactions.
The product may react violently with water.

10.4. Conditions to avoid.
Avoid overheating. Prevent moisture or water from penetrating inside the containers.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

HYDROGEN PEROXIDE SOLUTION
LD50 (Oral). 1193 mg/kg Rat
at the concentration of 35%

Carcinogenicity Assessment:
7722-84-1 HYDROGEN PEROXIDE SOLUTION
IARC:3

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

HYDROGEN PEROXIDE SOLUTION
Solubility in water. 100000 mg/l
Rapidly biodegradable.

12.3. Bioaccumulative potential.

HYDROGEN PEROXIDE SOLUTION
Partition coefficient: n-octanol/water. -1.57

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 2984

14.2. UN proper shipping name.

ADR / RID: HYDROGEN PEROXIDE, AQUEOUS
IMDG: HYDROGEN PEROXIDE, AQUEOUS
IATA: HYDROGEN PEROXIDE, AQUEOUS

14.3. Transport hazard class(es).

ADR / RID: Class: 5.1 Label: 5.1

IMDG: Class: 5.1 Label: 5.1

IATA: Class: 5.1 Label: 5.1

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 50 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (E)
IMDG:	EMS: F-H, S-Q	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 555
	Pass.:	Maximum quantity: 2,5 L	Packaging instructions: 551
	Special Instructions:	-	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
7664-38-2 PHOSPHORIC ACID (Phosphorous compounds)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

EPCRA 304 EHS RQ:
7722-84-1 HYDROGEN PEROXIDE SOLUTION

CERCLA RQ:
7558-79-4 DISODIUM HYDROGENORTHOPHOSPHATE
7664-38-2 PHOSPHORIC ACID (Phosphorous compounds)

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

SECTION 15. Regulatory information. ... / >>

Massachussetts:

7558-79-4	DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1	HYDROGEN PEROXIDE SOLUTION
7664-38-2	PHOSPHORIC ACID (Phosphorous compounds)

Minnesota:

7722-84-1	HYDROGEN PEROXIDE SOLUTION
7664-38-2	PHOSPHORIC ACID (Phosphorous compounds)

New Jersey:

7558-79-4	DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1	HYDROGEN PEROXIDE SOLUTION
7664-38-2	PHOSPHORIC ACID (Phosphorous compounds)

New York:

7558-79-4	DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1	HYDROGEN PEROXIDE SOLUTION
7664-38-2	PHOSPHORIC ACID (Phosphorous compounds)

Pennsylvania:

7558-79-4	DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1	HYDROGEN PEROXIDE SOLUTION
7664-38-2	PHOSPHORIC ACID (Phosphorous compounds)

California:

7558-79-4	DISODIUM HYDROGENORTHOPHOSPHATE
7722-84-1	HYDROGEN PEROXIDE SOLUTION
7664-38-2	PHOSPHORIC ACID (Phosphorous compounds)

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 1	Oxidising liquid, category 1
Ox. Liq. 2	Oxidising liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety Data Sheet

According to U.S.A. Federal Hazcom 2012

1. Identification

1.1. Product identifier

Code: **66061**
Product name **THE CENTURY OF LIGHT PROGRESS**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Oxidising solid, category 3	May intensify fire; oxidiser.
Substance or mixture corrosive to metals, category 1	May be corrosive to metals.
Acute toxicity, category 4	Harmful if swallowed.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Respiratory sensitization, category 1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.

Precautionary statements:

Prevention:

P221	Take any precaution to avoid mixing with combustibles . . .
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves / eye protection / face protection.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P284	[In case of inadequate ventilation] wear respiratory protection.
P210	Keep away from heat.
P220	Keep / Store away from clothing / . . . / combustible materials.
P234	Keep only in original container.

Response:

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P330	Rinse mouth.
P302+P352	IF ON SKIN: wash with plenty of water.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: use carbon dioxide, foam, chemical powder to extinguish.
P390	Absorb spillage to prevent material damage.
P301+P312	IF SWALLOWED: Call a POISON CENTER / doctor / . . . / if you feel unwell.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: use carbon dioxide, foam, chemical powder to extinguish.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P406	Store in corrosive resistant / . . . container with a resistant inner liner.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

The mixture contains 24.00% of components of unknown acute oral toxicity.

2.2. Other hazards

No other hazards known.

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification		**Conc. %**	**Classification:**
Potassium persulphate			
CAS	*7727-21-1*	37.5	**Explosive, division 1.5 H205, Oxidising solid, category 3 H272, Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Respiratory sensitization, category 1 H334, Skin sensitization, category 1 H317**
EC	*231-781-8*		

3. Composition/information on ingredients ... / >>

INDEX *016-061-00-1*
Sodium silicate
CAS *1344-09-8* 22.5 **Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335**
EC *215-687-4*
INDEX
AMMONIUM PEROXYDISULPHATE
CAS *7727-54-0* 7.5 **Oxidising solid, category 3 H272, Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Respiratory sensitization, category 1 H334, Skin sensitization, category 1 H317**
EC *231-786-5*
INDEX *016-060-00-6*
DISODIUM METASILICATE
CAS *6834-92-0* 4 **Substance or mixture corrosive to metals, category 1 H290, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335**
EC *229-912-9*
INDEX *014-010-00-8*

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products. The product is combustible and, when the powder is released into the air in sufficient concentrations and in the presence of a source of ignition, it can create explosive mixtures with air. Fires may start or get worse by leakage of the solid product from the container, when it reaches high temperatures or through contact with sources of ignition.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

If there are no contraindications, spray powder with water to prevent the formation of dust.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product and place it in containers for recovery or disposal. If there are no contraindications, use jets of water to eliminate product residues.
Make sure the leakage site is well aired. Evaluate the compatibility of the container to be used, by checking section 10. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

TLV-ACGIH ACGIH 2018

AMMONIUM PEROXYDISULPHATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	0.1			

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

During the risk assessment process, it is essential to take into consideration the ACGIH occupational exposure levels for inert particulate not otherwise classified (PNOC respirable fraction: 3 mg/m3; PNOC inhalable fraction: 10 mg/m3). For values above these limits, use a P type filter, whose class (1, 2 or 3) must be chosen according to the outcome of risk assessment.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.

8. Exposure controls/personal protection ... / >>

HAND PROTECTIONIn the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (OSHA 29 CFR 1910.138).
Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.

SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear. Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
Use a NIOSH certified filtering facemask (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134) or equivalent device, whose class and effective need, must be defined according to the outcome of risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	powder
Colour	violet
Odour	characteristic
Odour threshold	Not available
pH	10,3 -11,3
Melting point / freezing point	Not available
Initial boiling point	Not applicable
Boiling range	Not available
Flash point	Not applicable
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	Not available
Solubility	partially soluble
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The powders are potentially explosive when mixed with air.

10.4. Conditions to avoid

Avoid environmental dust build-up.

10. Stability and reactivity ... / >>

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

DISODIUM METASILICATE

LD50 (Oral)	666.7 mg/kg Rat

AMMONIUM PEROXYDISULPHATE

LD50 (Oral)	495 mg/kg Rat
LD50 (Dermal)	2000 mg/kg Rat
LC50 (Inhalation)	2.95 mg/l/4h Rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin
Sensitising for the respiratory system

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

May cause respiratory irritation

11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

DISODIUM METASILICATE

LC50 - for Fish	210 mg/l/96h Danio rerio
EC50 - for Crustacea	1700 mg/l/48h Daphnia magna

12.2. Persistence and degradability

AMMONIUM PEROXYDISULPHATE

Solubility in water	> 10000 mg/l

Degradability: information not available

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 3085

14.2. UN proper shipping name

ADR / RID:	OXIDIZING SOLID, CORROSIVE, N.O.S. (potassium persulphate, sodium metasilicate anhydrous)
IMDG:	OXIDIZING SOLID, CORROSIVE, N.O.S. (potassium persulphate, sodium metasilicate anhydrous)
IATA:	OXIDIZING SOLID, CORROSIVE, N.O.S. (potassium persulphate, sodium metasilicate anhydrous)

14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 5.1	Label: 5.1 (8)	
IMDG:	Class: 5.1	Label: 5.1 (8)	
IATA:	Class: 5.1	Label: 5.1 (8)	

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 58	Limited Quantities: 5 kg	Tunnel restriction code: (E)
	Special Provision: -		
IMDG:	EMS: F-A, S-Q	Limited Quantities: 5 kg	
IATA:	Cargo:	Maximum quantity: 100 Kg	Packaging instructions: 563
	Pass.:	Maximum quantity: 25 Kg	Packaging instructions: 559
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

15. Regulatory information ... / >>

No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:

7727-21-1	Potassium persulphate

Minnesota:
No component(s) listed.

New Jersey:

7727-21-1	Potassium persulphate
7727-54-0	AMMONIUM PEROXYDISULPHATE

New York:
No component(s) listed.

Pennsylvania:

7727-21-1	Potassium persulphate

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H205	May mass explode in fire.
H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.

16. Other information ... / >>

H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.

16. Other information ... / >>

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 03.

Safety Data Sheet

According to U.S.A. Federal Hazcom 2012

1. Identification

1.1. Product identifier

Code:	**66062**
Product name	**THE CENTURY OF LIGHT LIBERTY**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**uso professionale**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Oxidising solid, category 3	May intensify fire; oxidiser.
Substance or mixture corrosive to metals, category 1	May be corrosive to metals.
Acute toxicity, category 4	Harmful if swallowed.
Skin corrosion, category 1	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Respiratory sensitization, category 1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

H272	May intensify fire; oxidiser.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.

Precautionary statements:

Prevention:

P221	Take any precaution to avoid mixing with combustibles . . .
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P284	[In case of inadequate ventilation] wear respiratory protection.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep / Store away from clothing / . . . / combustible materials.
P234	Keep only in original container.

Response:

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
P310	Immediately call a POISON CENTER / doctor.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P330	Rinse mouth.
P302+P352	IF ON SKIN: wash with plenty of water.
P370+P378	In case of fire: use carbon dioxide, foam, chemical powder to extinguish.
P390	Absorb spillage to prevent material damage.
P301+P312	IF SWALLOWED: Call a POISON CENTER / doctor / . . . / if you feel unwell.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: use carbon dioxide, foam, chemical powder to extinguish.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P406	Store in corrosive resistant / . . . container with a resistant inner liner.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards

No other hazards known.

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**Conc. %**	**Classification:**
Potassium persulphate		
CAS *7727-21-1*	37.5	**Explosive, division 1.5 H205, Oxidising solid, category 3 H272, Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Respiratory sensitization, category 1 H334, Skin sensitization, category 1 H317**
EC *231-781-8*		
INDEX *016-061-00-1*		

3. Composition/information on ingredients ... / >>

SODIUM PHOSPHATE TRIBASIC DODECAHYDRATE
CAS *10101-89-0* 7.5 **Skin corrosion, category 1B H314**
EC *231-509-8*
INDEX
DISODIUM METASILICATE
CAS *6834-92-0* 4 **Substance or mixture corrosive to metals, category 1 H290, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335**
EC *229-912-9*
INDEX *014-010-00-8*
AMMONIUM PEROXYDISULPHATE
CAS *7727-54-0* 2.5 **Oxidising solid, category 3 H272, Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Respiratory sensitization, category 1 H334, Skin sensitization, category 1 H317**
EC *231-786-5*
INDEX *016-060-00-6*

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products. The product is combustible and, when the powder is released into the air in sufficient concentrations and in the presence of a source of ignition, it can create explosive mixtures with air. Fires may start or get worse by leakage of the solid product from the container, when it reaches high temperatures or through contact with sources of ignition.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

If there are no contraindications, spray powder with water to prevent the formation of dust.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product and place it in containers for recovery or disposal. If there are no contraindications, use jets of water to eliminate product residues.
Make sure the leakage site is well aired. Evaluate the compatibility of the container to be used, by checking section 10. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

TLV-ACGIH ACGIH 2018

AMMONIUM PEROXYDISULPHATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	0.1			

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

During the risk assessment process, it is essential to take into consideration the ACGIH occupational exposure levels for inert particulate not otherwise classified (PNOC respirable fraction: 3 mg/m3; PNOC inhalable fraction: 10 mg/m3). For values above these limits, use a P type filter, whose class (1, 2 or 3) must be chosen according to the outcome of risk assessment.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.

8. Exposure controls/personal protection ... / >>

HAND PROTECTIONIn the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (OSHA 29 CFR 1910.138).
Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.

SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear. Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
Use a NIOSH certified filtering facemask (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134) or equivalent device, whose class and effective need, must be defined according to the outcome of risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	powder
Colour	white
Odour	characteristic
Odour threshold	Not available
pH	9,6 - 10,6
Melting point / freezing point	Not available
Initial boiling point	Not applicable
Boiling range	Not available
Flash point	Not applicable
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	Not available
Solubility	partially soluble
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The powders are potentially explosive when mixed with air.

10.4. Conditions to avoid

Avoid environmental dust build-up.

10. Stability and reactivity ... / >>

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

DISODIUM METASILICATE

LD50 (Oral)	666.7 mg/kg Rat

SODIUM PHOSPHATE TRIBASIC DODECAHYDRATE

LD50 (Oral)	7400 mg/kg Rat

AMMONIUM PEROXYDISULPHATE

LD50 (Oral)	495 mg/kg Rat
LD50 (Dermal)	2000 mg/kg Rat
LC50 (Inhalation)	2.95 mg/l/4h Rat

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin
Sensitising for the respiratory system

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

11. Toxicological information ... / >>

May cause respiratory irritation

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

DISODIUM METASILICATE

LC50 - for Fish	210 mg/l/96h Danio rerio
EC50 - for Crustacea	1700 mg/l/48h Daphnia magna

12.2. Persistence and degradability

AMMONIUM PEROXYDISULPHATE

Solubility in water	> 10000 mg/l

Degradability: information not available

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 3085

14. Transport information ... / >>

14.2. UN proper shipping name

ADR / RID: OXIDIZING SOLID, CORROSIVE, N.O.S. (potassium persulphate, sodium metasilicate anhydrous)
IMDG: OXIDIZING SOLID, CORROSIVE, N.O.S. (potassium persulphate, sodium metasilicate anhydrous)
IATA: OXIDIZING SOLID, CORROSIVE, N.O.S. (potassium persulphate, sodium metasilicate anhydrous)

14.3. Transport hazard class(es)

ADR / RID: Class: 5.1 Label: 5.1 (8)

IMDG: Class: 5.1 Label: 5.1 (8)

IATA: Class: 5.1 Label: 5.1 (8)

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 58 Special Provision: -	Limited Quantities: 5 kg	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-Q	Limited Quantities: 5 kg	
IATA:	Cargo:	Maximum quantity: 100 Kg	Packaging instructions: 563
	Pass.:	Maximum quantity: 25 Kg	Packaging instructions: 559
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

15. Regulatory information ... / >>

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
10101-89-0 SODIUM PHOSPHATE TRIBASIC DODECAHYDRATE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
7727-21-1 Potassium persulphate
10101-89-0 SODIUM PHOSPHATE TRIBASIC DODECAHYDRATE

Minnesota:
No component(s) listed.

New Jersey:
7727-21-1 Potassium persulphate
7727-54-0 AMMONIUM PEROXYDISULPHATE

New York:
10101-89-0 SODIUM PHOSPHATE TRIBASIC DODECAHYDRATE

Pennsylvania:
7727-21-1 Potassium persulphate
10101-89-0 SODIUM PHOSPHATE TRIBASIC DODECAHYDRATE

California:
10101-89-0 SODIUM PHOSPHATE TRIBASIC DODECAHYDRATE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H205 May mass explode in fire.
H272 May intensify fire; oxidiser.

16. Other information ... / >>

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
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- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
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- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website

16. Other information ... / >>

- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 03.

Safety Data Sheet

According to U.S.A. Federal Hazcom 2012

1. Identification

1.1. Product identifier

Code: **66063**
Product name **GEL SCHIARENTE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Flammable liquid, category 4	Combustible liquid.
Acute toxicity, category 4	Harmful if swallowed.
Acute toxicity, category 4	Harmful if inhaled.
Skin corrosion, category 1	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H227	Combustible liquid.
H302+H332	Harmful if swallowed or if inhaled.
H314	Causes severe skin burns and eye damage.

2. Hazards identification ... / >>

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P264	Wash hands thoroughly after handling.

Response:

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
P310	Immediately call a POISON CENTER / doctor.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P330	Rinse mouth.
P370+P378	In case of fire: use carbon dioxide, foam, chemical powder to extinguish.
P301+P312	IF SWALLOWED: Call a POISON CENTER / doctor / . . . / if you feel unwell.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

The mixture contains 38.60%;97.60% of components of unknown acute oral / inhalation toxicity.

2.2. Other hazards

No other hazards known.

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification		**Conc. %**	**Classification:**
Alcohols, C12-14, ethoxylated			
CAS	*68439-50-9*	30	**Acute toxicity, category 4 H302, Serious eye damage, category 1 H318**
EC	*500-213-3*		
INDEX			
ETHANOLAMINE			
CAS	*141-43-5*	4.7	**Acute toxicity, category 4 H302, Acute toxicity, category 4 H312, Acute toxicity, category 4 H332, Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335**
EC	*205-483-3*		
INDEX	*603-030-00-8*		
Alcohols, C12-14			
CAS	*80206-82-2*	1.5	**Eye irritation, category 2 H319**
EC	*279-420-3*		
INDEX			

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

4. First-aid measures ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may

7. Handling and storage ... / >>

accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU	Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2018

ETHANOLAMINE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	2.5	1	7.6	3	SKIN
TLV-ACGIH	-	7.5	3	15	6	
OSHA	USA	6	3			
CAL/OSHA	USA	8	3	15	6	
NIOSH	USA	8	3	15	6	

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear. Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84, OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid to gel		
Colour	light yellow to yellow		
Odour	STD. REF.		
Odour threshold	Not available		
pH	10,80 - 11,80		
Melting point / freezing point	Not available		
Initial boiling point	Not available		
Boiling range	Not available		
Flash point	60 < T ≤ 93	°C	(140 < T ≤ 199,4 °F)
Evaporation rate	Not available		
Flammability (solid, gas)	Not available		
Lower inflammability limit	Not available		
Upper inflammability limit	Not available		
Lower explosive limit	Not available		
Upper explosive limit	Not available		
Vapour pressure	Not available		
Vapour density	Not available		
Relative density	0,9882 - 0,9982		
Solubility	Not available		
Partition coefficient: n-octanol/water	Not available		
Auto-ignition temperature	Not available		
Decomposition temperature	Not available		
Viscosity	Not available		
Explosive properties	Not available		
Oxidising properties	Not available		

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

1,2-PROPANEDIOL
At high temperatures it tends to oxidate to form propionaldehyde and lactic and acetic acid.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ETHANOLAMINE	
LD50 (Oral)	1515 mg/kg rat
LD50 (Dermal)	2504 mg/kg rabbit
LC50 (Inhalation)	> 1.3 mg/l 6h rat
Alcohols, C12-14	
LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 2000 mg/kg Rabbit
Alcohols, C12-14, ethoxylated	
LD50 (Oral)	> 300 mg/kg

SKIN CORROSION / IRRITATION

Corrosive for the skin
Classification according to the experimental Ph value

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and highly toxic for aquatic organisms.
This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

ETHANOLAMINE

LC50 - for Fish	349 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	65 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2.5 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Fish	1.2 mg/l 30 d - Oryzias latipes
Chronic NOEC for Crustacea	0.85 mg/l 21 d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72 h - Pseudokirchnerella subcapitata - growth rate

Alcohols, C12-14

LC50 - for Fish	1.01 mg/l/96h
EC50 - for Crustacea	> 0.765 mg/l/48h Daphnia sp,
EC50 - for Algae / Aquatic Plants	0.66 mg/l/72h
Chronic NOEC for Crustacea	0.014 mg/l

Alcohols, C12-14, ethoxylated

LC50 - for Fish	> 1 mg/l/96h

12.2. Persistence and degradability

ETHANOLAMINE

Solubility in water	> 1000000 mg/l

Alcohols, C12-14

Solubility in water	20°C mg/l

Alcohols, C12-14, ethoxylated
Rapidly degradable

12.3. Bioaccumulative potential

ETHANOLAMINE

Partition coefficient: n-octanol/water	-1.91

12. Ecological information ... / >>

Alcohols, C12-14

Partition coefficient: n-octanol/water 5.4

Alcohols, C12-14, ethoxylated

Partition coefficient: n-octanol/water 4.75

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 3267

14.2. UN proper shipping name

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (ETHANOLAMINE)
IMDG: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (ETHANOLAMINE; Alcohols, C12-14, ethoxylated)
IATA: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (ETHANOLAMINE)

14.3. Transport hazard class(es)

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group

ADR / RID, IMDG, IATA: II

14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 80 Special Provision: -	Limited Quantities: 1 L	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-B	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 855
	Pass.:	Maximum quantity: 1 L	Packaging instructions: 851
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

15. Regulatory information ... / >>

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:

141-43-5	ETHANOLAMINE

Minnesota:

57-55-6	1,2-PROPANEDIOL
141-43-5	ETHANOLAMINE

New Jersey:

57-55-6	1,2-PROPANEDIOL
141-43-5	ETHANOLAMINE

New York:
No component(s) listed.

Pennsylvania:

57-55-6	1,2-PROPANEDIOL
141-43-5	ETHANOLAMINE

California:

141-43-5	ETHANOLAMINE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H227	Combustible liquid.
H302+H332	Harmful if swallowed or if inhaled.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)

16. Other information ... / >>

- CAS NUMBER: Chemical Abstract Service Number - CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71242/3**
Product name **NT REJUV BOOSTER SUPERAC SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves / eye protection / face protection.

Response:

SECTION 2. Hazards identification. ... / >>

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice / attention.
P337+P313	If eye irritation persists: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
SODIUM HYDROXIDE		
CAS. 1310-73-2	0.5 - 1	Substance or mixture corrosive to metals, category 1 H290, Skin corrosion, category 1A H314
Guar Hydroxypropyltrimonium Chloride		
CAS. 65497-29-2	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

SECTION 5. Firefighting measures. ... / >>

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

SODIUM HYDROXIDE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			2 (C)	
OSHA	USA	2			
CAL/OSHA	USA	2			
NIOSH	USA			2 (C)	

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		OPALESCENT FLUID GEL		
Colour		yellow to intense yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		3,50 - 4,50		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0271 - 1,0371	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		2.000,0000 - 4.000,0000		

SECTION 9. Physical and chemical properties. ... / >>

Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

D-glucono-1,5-lactone

LD50 (Oral).	6060 mg/kg rat
LD50 (Dermal).	> 2000 mg/kg rat

SODIUM HYDROXIDE

LD50 (Oral).	1350 mg/kg Rat
LD50 (Dermal).	1350 mg/kg Rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

Guar Hydroxypropyltrimonium Chloride

LC50 - for Fish.	0.8 mg/l/96h
EC50 - for Crustacea.	100 mg/l/48h

SECTION 12. Ecological information. ... / >>

D-glucono-1,5-lactone
LC50 - for Fish. > 100 mg/l/96h Oryzias latipes
EC50 - for Crustacea. > 1000 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

Guar Hydroxypropyltrimonium Chloride
NOT rapidly biodegradable.

D-glucono-1,5-lactone
Rapidly biodegradable.

SODIUM HYDROXIDE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1760

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE)
IMDG: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE)
IATA: CORROSIVE LIQUID, N.O.S. (SODIUM HYDROXIDE)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 8	Label: 8	
IMDG:	Class: 8	Label: 8	
IATA:	Class: 8	Label: 8	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 80 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-B	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:

SECTION 15. Regulatory information. ... / >>

313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
1310-73-2 SODIUM HYDROXIDE

Minnesota:
1310-73-2 SODIUM HYDROXIDE

New Jersey:
1310-73-2 SODIUM HYDROXIDE

New York:
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
1310-73-2 SODIUM HYDROXIDE

California:
1310-73-2 SODIUM HYDROXIDE

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Met. Corr. 1	Substance or mixture corrosive to metals, category 1
Skin Corr. 1A	Skin corrosion, category 1A
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1

SECTION 16. Other information. ... / >>

Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website

SECTION 16. Other information. ... / >>

- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71243**
Product name **NATURAL TECH REJUVENATING SHAMPOO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

SECTION 2. Hazards identification. ... / >>

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	5 - 9	Eye irritation, category 2 H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts		
CAS. 68650-39-5	1 - 3	Serious eye damage, category 1 H318
α-hexylcinnamaldehyde		
CAS. 101-86-0	0.1 - 0.5	Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
dodecan-1-ol		
CAS. 112-53-8	0 - 0.5	Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Guar Hydroxypropyltrimonium Chloride		
CAS. 65497-29-2	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
(R)-p-mentha-1,8-diene		
CAS. 5989-27-5	0.1 - 0.25	Flammable liquid, category 3 H226, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS. *54464-57-2* 0.1 - 0.5 Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		OPAQUE VISCOUS FLUID		
Colour		LIGHT YELLOW		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		5,00 - 6,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)

SECTION 9. Physical and chemical properties. ... / >>

Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,0310 - 1,0410 Kg/l
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	6.000,0000 - 9.500,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

SECTION 11. Toxicological information. ... / >>

(R)-p-mentha-1,8-diene
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 5000 mg/kg rabbit

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 5000 mg/kg Rabbit

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
67-63-0 PROPAN-2-OL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Guar Hydroxypropyltrimonium Chloride
LC50 - for Fish. 0.8 mg/l/96h
EC50 - for Crustacea. 100 mg/l/48h

α-hexylcinnamaldehyde
LC50 - for Fish. < 1 mg/l/96h
Chronic NOEC for Fish. > 1 mg/l

(R)-p-mentha-1,8-diene
LC50 - for Fish. 0.72 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 0.36 mg/l/48h Daphnia magna

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LC50 - for Fish. 1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea. 0.32 mg/l 21 d - Daphnia magna (riproduzione)

dodecan-1-ol
LC50 - for Fish. 1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LC50 - for Fish. 1.3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea. 1.38 mg/l/48h Daphnia sp,
EC50 - for Algae / Aquatic Plants. > 2.6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish. 0.3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea. 0.448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants. 2.6 mg/l 72h

SECTION 12. Ecological information. ... / >>

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts
LC50 - for Fish. > 10 mg/l/96h
EC50 - for Crustacea. > 10 mg/l/48h Daphnia magna

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LC50 - for Fish. > 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea. 14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea. 6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants. 12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability.

Guar Hydroxypropyltrimonium Chloride
NOT rapidly biodegradable.

(R)-p-mentha-1,8-diene
Solubility in water. 12.3 mg/l
Rapidly biodegradable.

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

dodecan-1-ol
Solubility in water. 1 mg/l

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water. 2.68 mg/l
Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

12.3. Bioaccumulative potential.

dodecan-1-ol
Partition coefficient: n-octanol/water. 5.36 log Pow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE

EPCRA 313 TRI:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

SECTION 15. Regulatory information. ... / >>

RCRA Code:
110-82-7 CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

Minnesota:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

New Jersey:
56-81-5 Glycerol
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

New York:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

Pennsylvania:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

California:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 3 Flammable liquid, category 3
Eye Dam. 1 Serious eye damage, category 1
Eye Irrit. 2 Eye irritation, category 2
Skin Irrit. 2 Skin irritation, category 2
Skin Sens. 1 Skin sensitization, category 1

SECTION 16. Other information. ... / >>

Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H226	Flammable liquid and vapour.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act

SECTION 16. Other information. ... / >>

- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71245**
Product name **NATURAL TECH RENEWING CONDITIONING TREATMENT**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
α-hexylcinnamaldehyde		
CAS. 101-86-0	0.1 - 0.5	Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	LUCID CREAM
Colour	white
Odour	STD. REF.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		3,50 - 4,50	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9925 - 1,0025	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		45.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

Docosanol, ethoxylated, 20 mol EO (average molar ratio)
LD50 (Oral). > 2000 mg/kg

hexadecan-1-ol
LD50 (Oral). > 2000 mg/kg rat

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

Glycerides, C14-18 mono- and di-
LD50 (Oral). > 5000 mg/kg

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.08 mg/l/72h
Chronic NOEC for Crustacea. 0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants. 0.08 mg/l/72h

α-hexylcinnamaldehyde
LC50 - for Fish. < 1 mg/l/96h
Chronic NOEC for Fish. > 1 mg/l

12.2. Persistence and degradability.

Docosanol, ethoxylated, 20 mol EO (average molar ratio)
Rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

Minnesota:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

New Jersey:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

SECTION 15. Regulatory information. ... / >>

California:
67-63-0 PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation

SECTION 16. Other information. ... / >>

- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71246**
Product name **NATURAL TECH RENEWING CONDITIONING TREATMENT**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
α-hexylcinnamaldehyde		
CAS. 101-86-0	0.1 - 0.5	Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	LUCID CREAM
Colour	white
Odour	STD. REF.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		3,50 - 4,50	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9946 - 1,0046	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		15.000,0000 - 40.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

Docosanol, ethoxylated, 20 mol EO (average molar ratio)
LD50 (Oral). > 2000 mg/kg

hexadecan-1-ol
LD50 (Oral). > 2000 mg/kg rat

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

Glycerides, C14-18 mono- and di-
LD50 (Oral). > 5000 mg/kg

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.08 mg/l/72h
Chronic NOEC for Crustacea. 0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants. 0.08 mg/l/72h

α-hexylcinnamaldehyde
LC50 - for Fish. < 1 mg/l/96h
Chronic NOEC for Fish. > 1 mg/l

12.2. Persistence and degradability.

Docosanol, ethoxylated, 20 mol EO (average molar ratio)
Rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

SECTION 15. Regulatory information. ... / >>

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

Minnesota:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

New Jersey:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

SECTION 15. Regulatory information. ... / >>

California:
67-63-0 PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation

SECTION 16. Other information. ... / >>

- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71247**
Product name **NATURAL TECH RENEWING SERUM SUPERACTIVE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		fluid	
Colour		pale pink	
Odour		STD. REF.	
Odour threshold.		Not available.	
pH.		3,50 - 4,50	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9985 - 1,0085	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	Not available.
Viscosity	400,0000 - 800,0000
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):

SECTION 15. Regulatory information. ... / >>

No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
1310-73-2 SODIUM HYDROXIDE
67-63-0 PROPAN-2-OL

Minnesota:
1310-73-2 SODIUM HYDROXIDE
67-63-0 PROPAN-2-OL

New Jersey:
1310-73-2 SODIUM HYDROXIDE
67-63-0 PROPAN-2-OL

New York:
1310-73-2 SODIUM HYDROXIDE

Pennsylvania:
1310-73-2 SODIUM HYDROXIDE
67-63-0 PROPAN-2-OL

California:
1310-73-2 SODIUM HYDROXIDE
67-63-0 PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

SECTION 16. Other information. ... / >>

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71251**
Product name **NATURAL TECH ENERGIZING SHAMPOO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

SECTION 2. Hazards identification. ... / >>

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	5 - 9	Eye irritation, category 2 H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts		
CAS. 68650-39-5	1 - 3	Serious eye damage, category 1 H318
sodium N-lauroylsarcosinate		
CAS. 137-16-6	1 - 3	Acute toxicity, category 2 H330, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
caffeine		
CAS. 58-08-2	1 - 5	Acute toxicity, category 4 H302
Oils, peppermint (Mentha piperita)		
CAS. 8006-90-4	0.1 - 0.5	Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Peppermint, ext.		
CAS. 84082-70-2	0.1 - 0.5	Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Eucalyptus globulus oil		
CAS. 8000-48-4	0.1 - 0.5	Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
EUCALYPTUS OIL		
CAS. 8000-48-4	0.1 - 0.5	Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

SECTION 4. First aid measures. ... / >>

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		opalescent gel to opaque gel		
Colour		red		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		5,50 - 6,20		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0292 - 1,0392	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		2.000,0000 - 3.500,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

caffeine
LD50 (Oral). 355 mg/kg rat

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

sodium N-lauroylsarcosinate
LD50 (Oral). > 5000 mg/kg rat
LC50 (Inhalation). 0.5 mg/l/4h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Carcinogenicity Assessment:
58-08-2

SECTION 11. Toxicological information. ... / >>

	caffeine
IARC:3	
97-53-0	eugenol
IARC:3	
67-63-0	PROPAN-2-OL
IARC:3	

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

caffeine

LC50 - for Fish.	87 mg/l/96h Leuciscus idus
EC50 - for Crustacea.	182 mg/l/48h Daphnia magna

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts

LC50 - for Fish.	1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish.	0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea.	0.32 mg/l 21 d - Daphnia magna (riproduzione)

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts

LC50 - for Fish.	> 10 mg/l/96h
EC50 - for Crustacea.	> 10 mg/l/48h Daphnia magna

sodium N-lauroylsarcosinate

LC50 - for Fish.	56 mg/l/96h Rainbow trout

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish.	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea.	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants.	12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability.

caffeine
Rapidly biodegradable.

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

EPCRA 313 TRI:
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

RCRA Code:
110-82-7 CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 BENZYL ALCOHOL
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

Minnesota:
100-51-6 BENZYL ALCOHOL
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

New Jersey:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

New York:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE

Pennsylvania:
100-51-6 BENZYL ALCOHOL
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL

California:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL
97-53-0 eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

SECTION 15. Regulatory information. ... / >>

None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H226	Flammable liquid and vapour.
H330	Fatal if inhaled.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value

SECTION 16. Other information. ... / >>

- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71255**
Product name **NATURAL TECH ENERGIZING SEASONAL SUPERACTIVE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2	Highly flammable liquid and vapour.
Skin sensitization, category 1A	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.

SECTION 2. Hazards identification. ... / >>

P241	Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: use carbon dioxide, foam, chemical powder to extinguish.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
ETHANOL		
CAS. 64-17-5	40 - 60	Flammable liquid, category 2 H225
cineole		
CAS. 470-82-6	0.5 - 1	Flammable liquid, category 3 H226, Skin sensitization, category 1A H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT

SECTION 5. Firefighting measures. ... / >>

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		TRANSPARENT LIQUID		
Colour		yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		6,50 - 8,00		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9101 - 0,9201	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

cineole

LD50 (Oral).	2480 mg/kg Rat
LD50 (Dermal).	5000 mg/kg Rabbit

ETHANOL

LD50 (Oral).	> 5000 mg/kg Rat
LC50 (Inhalation).	120 mg/l/4h Pimephales promelas

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

cineole
Rapidly biodegradable.

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

12.3. Bioaccumulative potential.

cineole
Partition coefficient: n-octanol/water. 2.5 Log KOW

ETHANOL
Partition coefficient: n-octanol/water. -0.35

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1170

14.2. UN proper shipping name.

ADR / RID: ETHANOL (ETHYL ALCOHOL) or ETHANOL
IMDG: ETHANOL (ETHYL ALCOHOL) or ETHANOL
IATA: ETHANOL (ETHYL ALCOHOL) or ETHANOL

14.3. Transport hazard class(es).

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group.

ADR / RID, IMDG, IATA: II

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33	Limited Quantities: 1 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-D	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3, A58, A180	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

64-17-5	ETHANOL
56-81-5	Glycerol

Minnesota:

64-17-5	ETHANOL
56-81-5	Glycerol

New Jersey:

64-17-5	ETHANOL
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

64-17-5	ETHANOL
56-81-5	Glycerol

California:

64-17-5	ETHANOL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Skin Sens. 1A	Skin sensitization, category 1A
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)

SECTION 16. Other information. ... / >>

- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71257**
Product name **NATURAL TECH ENERGIZING GEL**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Flammable liquid, category 2 — Highly flammable liquid and vapour.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H225 Highly flammable liquid and vapour.

Precautionary statements:
Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground / bond container and receiving equipment.
P241 Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242 Use only non-sparking tools.

SECTION 2. Hazards identification. ... / >>

P243 Take precautionary measures against static discharge.
P280 Wear protective gloves / eye protection / face protection.
Response:
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P370+P378 In case of fire: use carbon dioxide, foam, chemical powder to extinguish.
Storage:
P403+P235 Store in a well-ventilated place. Keep cool.
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
ETHANOL		
CAS. 64-17-5	24 - 40	Flammable liquid, category 2 H225
caffeine		
CAS. 58-08-2	1 - 5	Acute toxicity, category 4 H302

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

SECTION 5. Firefighting measures. ... / >>

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		OPAQUE GEL		
Colour		colorless to yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		4,70 - 5,70		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9578 - 0,9678	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		10.000,0000 - 15.000,0000		

SECTION 9. Physical and chemical properties. ... / >>

Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

caffeine

LD50 (Oral).	355 mg/kg rat

ETHANOL

LD50 (Oral).	> 5000 mg/kg Rat
LC50 (Inhalation).	120 mg/l/4h Pimephales promelas

Carcinogenicity Assessment:

64-17-5	ETHANOL
ACGIH:: A3	
IARC:1	
58-08-2	caffeine
IARC:3	
97-53-0	eugenol
IARC:3	

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.

caffeine

LC50 - for Fish.	87 mg/l/96h Leuciscus idus
EC50 - for Crustacea.	182 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

caffeine
Rapidly biodegradable.

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

12.3. Bioaccumulative potential.

ETHANOL
Partition coefficient: n-octanol/water. -0.35

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1170

14.2. UN proper shipping name.

ADR / RID: ETHANOL (ETHYL ALCOHOL) or ETHANOL
IMDG: ETHANOL (ETHYL ALCOHOL) or ETHANOL
IATA: ETHANOL (ETHYL ALCOHOL) or ETHANOL

14.3. Transport hazard class(es).

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group.

ADR / RID, IMDG, IATA: II

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33	Limited Quantities: 1 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-D	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3, A58, A180	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
110-82-7 CYCLOHEXANE

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
110-82-7 CYCLOHEXANE

EPCRA 313 TRI:
110-82-7 CYCLOHEXANE

RCRA Code:
110-82-7 CYCLOHEXANE

SECTION 15. Regulatory information. ... / >>

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
124-68-5	2-AMINO-2-METHYLPROPANOL
96-20-8	

Minnesota:

110-82-7	CYCLOHEXANE
64-17-5	ETHANOL

New Jersey:

110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
124-68-5	2-AMINO-2-METHYLPROPANOL

New York:

110-82-7	CYCLOHEXANE

Pennsylvania:

110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
124-68-5	2-AMINO-2-METHYLPROPANOL
96-20-8	

California:

110-82-7	CYCLOHEXANE
64-17-5	ETHANOL
97-53-0	eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008

SECTION 16. Other information. ... / >>

- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71258**
Product name **NATURAL TECH ENERGIZING SUPERACTIVE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2	Highly flammable liquid and vapour.
Skin sensitization, category 1A	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.

SECTION 2. Hazards identification. ... / >>

P241	Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: use carbon dioxide, foam, chemical powder to extinguish.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
ETHANOL		
CAS. 64-17-5	40 - 60	Flammable liquid, category 2 H225
cineole		
CAS. 470-82-6	0.5 - 1	Flammable liquid, category 3 H226, Skin sensitization, category 1A H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT

SECTION 5. Firefighting measures. ... / >>

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

SECTION 8. Exposure controls/personal protection. ... / >>

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		TRANSPARENT LIQUID		
Colour		from colorless to yellow		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		6,40 - 8,00		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9114 - 0,9214	Kg/l	
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

cineole

LD50 (Oral).	2480 mg/kg Rat
LD50 (Dermal).	5000 mg/kg Rabbit

ETHANOL

LD50 (Oral).	> 5000 mg/kg Rat
LC50 (Inhalation).	120 mg/l/4h Pimephales promelas

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

cineole
Rapidly biodegradable.

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

12.3. Bioaccumulative potential.

cineole
Partition coefficient: n-octanol/water. 2.5 Log KOW

ETHANOL
Partition coefficient: n-octanol/water. -0.35

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1170

14.2. UN proper shipping name.

ADR / RID: ETHANOL (ETHYL ALCOHOL) or ETHANOL
IMDG: ETHANOL (ETHYL ALCOHOL) or ETHANOL
IATA: ETHANOL (ETHYL ALCOHOL) or ETHANOL

14.3. Transport hazard class(es).

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group.

ADR / RID, IMDG, IATA: II

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33	Limited Quantities: 1 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-D	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3, A58, A180	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
64-17-5 ETHANOL

Minnesota:
64-17-5 ETHANOL

New Jersey:
64-17-5 ETHANOL

New York:
No component(s) listed.

Pennsylvania:
64-17-5 ETHANOL

California:
64-17-5 ETHANOL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Skin Sens. 1A	Skin sensitization, category 1A
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals

SECTION 16. Other information. ... / >>

- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
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- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **71259**
Product name **NATURAL TECH ENERGIZING THICKENING TONIC**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2	Highly flammable liquid and vapour.
Skin sensitization, category 1A	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.

SECTION 2. Hazards identification. ... / >>

P241	Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: use carbon dioxide, foam, chemical powder to extinguish.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
ETHANOL		
CAS. 64-17-5	40 - 60	Flammable liquid, category 2 H225
caffeine		
CAS. 58-08-2	1 - 5	Acute toxicity, category 4 H302
cineole		
CAS. 470-82-6	0.1 - 0.5	Flammable liquid, category 3 H226, Skin sensitization, category 1A H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

SECTION 5. Firefighting measures. ... / >>

UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		fluid slightly opaque gel		
Colour		colourless		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		5,60 - 6,60		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Flash point.	<	23 °C.	(73,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9191 - 0,9291	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		1.200,0000 - 2.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

caffeine

LD50 (Oral).	355 mg/kg rat

cineole

LD50 (Oral).	2480 mg/kg Rat
LD50 (Dermal).	5000 mg/kg Rabbit

ETHANOL

LD50 (Oral).	> 5000 mg/kg Rat
LC50 (Inhalation).	120 mg/l/4h Pimephales promelas

Carcinogenicity Assessment:

SECTION 11. Toxicological information. ... / >>

64-17-5 ETHANOL
ACGIH:: A3
IARC:1
58-08-2 caffeine
IARC:3
97-53-0 eugenol
IARC:3

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.

caffeine
LC50 - for Fish. 87 mg/l/96h Leuciscus idus
EC50 - for Crustacea. 182 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

caffeine
Rapidly biodegradable.

cineole
Rapidly biodegradable.

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

12.3. Bioaccumulative potential.

cineole
Partition coefficient: n-octanol/water. 2.5 Log KOW

ETHANOL
Partition coefficient: n-octanol/water. -0.35

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1170

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

ADR / RID:	ETHANOL (ETHYL ALCOHOL) or ETHANOL
IMDG:	ETHANOL (ETHYL ALCOHOL) or ETHANOL
IATA:	ETHANOL (ETHYL ALCOHOL) or ETHANOL

14.3. Transport hazard class(es).

ADR / RID:	Class: 3	Label: 3	
IMDG:	Class: 3	Label: 3	
IATA:	Class: 3	Label: 3	

14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33 Special Provision: -	Limited Quantities: 1 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-D	Limited Quantities: 1 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A58, A180	Packaging instructions: 364 Packaging instructions: 353

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
110-82-7 CYCLOHEXANE

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
110-82-7 CYCLOHEXANE

EPCRA 313 TRI:
110-82-7 CYCLOHEXANE

RCRA Code:
110-82-7 CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 Glycerol
110-82-7 CYCLOHEXANE
64-17-5 ETHANOL
124-68-5 2-AMINO-2-METHYLPROPANOL
96-20-8

Minnesota:
56-81-5 Glycerol
110-82-7 CYCLOHEXANE
64-17-5 ETHANOL

New Jersey:
56-81-5 Glycerol
110-82-7 CYCLOHEXANE
64-17-5 ETHANOL
124-68-5 2-AMINO-2-METHYLPROPANOL

New York:
110-82-7 CYCLOHEXANE

Pennsylvania:
56-81-5 Glycerol
110-82-7 CYCLOHEXANE
64-17-5 ETHANOL
124-68-5 2-AMINO-2-METHYLPROPANOL
96-20-8

California:
110-82-7 CYCLOHEXANE
64-17-5 ETHANOL
97-53-0 eugenol

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

SECTION 15. Regulatory information. ... / >>

None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
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Skin Sens. 1A	Skin sensitization, category 1A
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.

LEGEND:
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- Niosh - Registry of Toxic Effects of Chemical Substances

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- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
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- EPA website
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- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
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- OSHA website
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Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75116**
Product name **MINU POST COLOUR**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Eye irritation, category 2	Causes serious eye irritation.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.

SECTION 2. Hazards identification. ... / >>

P280 Wear eye protection / face protection.

Response:

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P314 Get medical advice / attention if you feel unwell.

P337+P313 If eye irritation persists: Get medical advice / attention.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Aminomodified Silicone		
CAS. 1126942-72-0	1 - 5	Eye irritation, category 2 H319, Skin irritation, category 2 H315
POLYDIALLYLDIMETHYL AMMONIUM CHLORIDE		
CAS. 26062-79-3	1 - 5	Hazardous to the aquatic environment, chronic toxicity, category 3 H412
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	0.5 - 1	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
dodecan-1-ol		
CAS. 112-53-8	0 - 0.5	Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	OPAQUE VISCOUS FLUID
Colour	WHITE TO BEIGE
Odour	STD. REF.
Odour threshold.	Not available.
pH.	3,50 - 4,50

SECTION 9. Physical and chemical properties. ... / >>

Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0000 - 1,0100	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		2.000,0000 - 4.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

Docosanol, ethoxylated, 20 mol EO (average molar ratio)
LD50 (Oral). > 2000 mg/kg

hexadecan-1-ol
LD50 (Oral). > 2000 mg/kg rat

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

SECTION 11. Toxicological information. ... / >>

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

POLYDIALLYLDIMETHYL AMMONIUM CHLORIDE
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 5000 mg/kg Rabbit

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.08 mg/l/72h
Chronic NOEC for Crustacea. 0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants. 0.08 mg/l/72h

dodecan-1-ol
LC50 - for Fish. 1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea. 0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

12.2. Persistence and degradability.

Docosanol, ethoxylated, 20 mol EO (average molar ratio)
Rapidly biodegradable.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

dodecan-1-ol
Solubility in water. 1 mg/l

12.3. Bioaccumulative potential.

SECTION 12. Ecological information. ... / >>

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

dodecan-1-ol
Partition coefficient: n-octanol/water. 5.36 log Pow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

New Jersey:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	BENZYL ALCOHOL
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

SECTION 15. Regulatory information. ... / >>

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit

SECTION 16. Other information. ... / >>

- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety Data Sheet

According to U.S.A. Federal Hazcom 2012

1. Identification

1.1. Product identifier

Code: **75558**
Product name **DEHC SOLU SALT SCRUB**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale/industriale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement
Serious eye damage, category 1 — Causes serious eye damage.
Skin irritation, category 2 — Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H318 Causes serious eye damage.
H315 Causes skin irritation.

Precautionary statements:
Prevention:
P280 Wear protective gloves / eye protection / face protection.

2. Hazards identification ... / >>

P264 Wash hands thoroughly after handling.

Response:

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER / doctor.

P302+P352 IF ON SKIN: wash with plenty of water.

P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:

--

Disposal:

--

2.2. Other hazards

No other hazards known.

3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	Conc. %	Classification:
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS *156572-81-5*	17.2	**Eye irritation, category 2 H319**
EC *700-150-3*		
INDEX		
Fatty acids, coco, 2-sulfoethyl esters, sodium salts		
CAS *61789-32-0*	4.1	**Eye irritation, category 2 H319**
EC *263-052-5*		
INDEX		
Betaines, coco alkyldimethyl		
CAS *66455-29-6*	3.04	**Skin corrosion, category 1B H314**
EC		
INDEX		
N-[3-(dimetilammino)propil]stearammide		
CAS *7651-02-7*	2.5	**Serious eye damage, category 1 H318**
EC *231-609-1*		
INDEX		
D-Glucopyranose, oligomeric, C8-10 glycosides		
CAS *68515-73-1*	1.016	**Serious eye damage, category 1 H318**
EC *500-220-1*		
INDEX		
Amides, C8-18(even-numbered) and C18(unsatd.), N-(2-hydroxypropyl)		
CAS *1335203-30-9*	1	**Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC *931-596-9*		
INDEX		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear. Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84, OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		SCRUB PASTE		
Colour		IVORY WITH RED SCRUB		
Odour		STD. REF.		
Odour threshold		Not available		
pH		4,80 - 6,20		
Melting point / freezing point		Not available		
Initial boiling point		Not available		
Boiling range		Not available		
Flash point	>	93	°C	(199,4 °F)
Evaporation rate		Not available		
Flammability (solid, gas)		Not available		
Lower inflammability limit		Not available		
Upper inflammability limit		Not available		
Lower explosive limit		Not available		
Upper explosive limit		Not available		
Vapour pressure		Not available		
Vapour density		Not available		
Relative density		1,3300 - 1,4300		
Solubility		Not available		
Partition coefficient: n-octanol/water		Not available		
Auto-ignition temperature		Not available		
Decomposition temperature		Not available		
Viscosity		Not available		
Explosive properties		Not available		
Oxidising properties		Not available		

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

Amides, C8-18(even-numbered) and C18(unsatd.), N-(2-hydroxypropyl)	
LD50 (Oral)	> 2006 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rat
Sodium 2- (dodecanoyloxy) propane -1- sulfonate	
LD50 (Oral)	8400 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rat
Fatty acids, coco, 2-sulfoethyl esters, sodium salts	
LD50 (Oral)	> 2000 mg/kg rat
D-Glucopyranose, oligomeric, C8-10 glycosides	
LD50 (Oral)	> 2000 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rabbit

11. Toxicological information ... / >>

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
97-53-0 eugenol
IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

Amides, C8-18(even-numbered) and C18(unsatd.), N-(2-hydroxypropyl)

LC50 - for Fish	5.251 mg/l/96h valore stimato
EC50 - for Crustacea	3.7 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 9.4 mg/l/72h Pseudokirchnerella subcapitata (growth rate)
EC10 for Algae / Aquatic Plants	2.3 mg/l/72h 72h - Pseudokirchnerella subcapitata (growth rate)
Chronic NOEC for Fish	0.32 mg/l 28d - Oncorhynchus mykiss
Chronic NOEC for Crustacea	0.07 mg/l 21d - Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	1 mg/l 72h - Pseudokirchnerella subcapitata

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish	> 25 mg/l/96h Salmo gairdneri

12. Ecological information ... / >>

EC50 - for Crustacea	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants	12.5 mg/l Desmodesmus subspicatus 72h

Fatty acids, coco, 2-sulfoethyl esters, sodium salts

LC50 - for Fish	> 25 mg/l/96h
EC50 - for Crustacea	> 32 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 1.87 mg/l/72h Pseudokirchnerella subcapitata
Chronic NOEC for Crustacea	> 32 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	> 0.31 mg/l Pseudokirchnerella subcapitata 72h

D-Glucopyranose, oligomeric, C8-10 glycosides

LC50 - for Fish	126 mg/l/96h Danio rerio
EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	27.22 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio
Chronic NOEC for Crustacea	1 mg/l Daphnia magna 21d

N-[3-(dimetilammino)propil]stearammide

LC50 - for Fish	< 1 mg/l/96h
EC50 - for Crustacea	38 mg/l/48h
Chronic NOEC for Fish	1 mg/l

12.2. Persistence and degradability

Amides, C8-18(even-numbered) and C18(unsatd.), N-(2-hydroxypropyl)
Rapidly degradable

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly degradable

Fatty acids, coco, 2-sulfoethyl esters, sodium salts

Solubility in water	a 23°C e pH 7 mg/l

Rapidly degradable

D-Glucopyranose, oligomeric, C8-10 glycosides
Rapidly degradable

12.3. Bioaccumulative potential

Amides, C8-18(even-numbered) and C18(unsatd.), N-(2-hydroxypropyl)

Partition coefficient: n-octanol/water	3.77

Fatty acids, coco, 2-sulfoethyl esters, sodium salts

Partition coefficient: n-octanol/water	< -1.8 Log Kow

12. Ecological information ... / >>

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:

15. Regulatory information ... / >>

No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
84-66-2 diethyl phthalate

EPCRA 313 TRI:
111-90-0 DIETHYLENE GLYCOL MONOETHYL ETHER (Glycol ethers)

RCRA Code:
84-66-2 diethyl phthalate

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
56-81-5 Glycerol

Minnesota:
56-81-5 Glycerol

New Jersey:
56-81-5 Glycerol

New York:
No component(s) listed.

Pennsylvania:
56-81-5 Glycerol
25265-71-8 oxydipropanol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

15. Regulatory information ... / >>

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)

- IARC website- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **87055**
Product name **THIS IS A SHINE WAX IT'S FOR A POLISHED FINISH**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

SECTION 2. Hazards identification. ... / >>

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273	Avoid release to the environment.

Response:

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Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

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SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	9 - 24	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	3 - 5	Serious eye damage, category 1 H318
Alcohols, C16-18 and C18-unsatd., ethoxylated		
CAS. 68920-66-1	1 - 5	Skin irritation, category 2 H315, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
Amides, C18-unsatd., dimers, hydrogenated, N,N'-bis[3-(dimethylamino)propyl], polymers with di-Me, 3-hydroxypropyl Me siloxanes ethers with polyethylene glycol and polyethylene glycol mono (chloroacetate)		
CAS. 1383435-61-7	0.5 - 1	Skin sensitization, category 1 H317
HEXAMETHYLDISILOXANE		
CAS. 107-46-0	0 - 0.5	Flammable liquid, category 2 H225, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
CAS. 54464-57-2	0.1 - 0.25	Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one
CAS. 32388-55-9 0 - 0.25 Skin sensitization, category 1B H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	compact wax
Colour	WHITE/ROSE
Odour	STD. REF.
Odour threshold.	Not available.
pH.	5,50 - 6,40

SECTION 9. Physical and chemical properties. ... / >>

Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0240 - 1,0340	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		Not available.	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

Carbonic Acid, Dicaprylyl Ester

LD50 (Oral).	> 5000 mg/kg

Alcohols, C16-18 and C18-unsatd., ethoxylated

LD50 (Oral).	> 2000 mg/kg rat
LD50 (Dermal).	2000 mg/kg male rabbit
LC50 (Inhalation).	> 1.6 mg/l/4h rat

SECTION 11. Toxicological information. ... / >>

DIMETHICONE
LD50 (Oral). > 5000 mg/kg rat
LD50 (Dermal). > 2008 mg/kg rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 2000 mg/kg rat

Alcohols, C16-18, ethoxylated
LD50 (Oral). > 300 mg/kg

POLYSILOXANES
LD50 (Oral). > 15400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rabbit

HEXAMETHYLDISILOXANE
LD50 (Oral). > 16 mL/kg rat
LD50 (Dermal). > 2000 mg/kg rat
LC50 (Inhalation). 15956 ppm/4h rat

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 5000 mg/kg Rabbit

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Alcohols, C16-18 and C18-unsatd., ethoxylated
LC50 - for Fish. 108 mg/l/96h Danio rerio

DIMETHICONE
Chronic NOEC for Fish. > 10000 mg/l Oncorhynchus mykiss (28 day) _ Read across

Alcohols, C16-18, ethoxylated
LC50 - for Fish. > 1 mg/l/96h Leuciscus idus

Alcohols, C16-18, ethoxylated
LC50 - for Fish. > 1 mg/l/96h (dato fornito da Basf)

POLYSILOXANES
EC50 - for Crustacea. > 200 mg/l/48h Daphnia magna

HEXAMETHYLDISILOXANE
LC50 - for Fish. 0.46 mg/l/96h
EC50 - for Algae / Aquatic Plants. 0.55 mg/l/72h

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LC50 - for Fish. 0.16 mg/l 30d - Danio rerio (mortality post hatch survival)
EC50 - for Crustacea. 1.38 mg/l/48h Daphnia sp,
EC50 - for Algae / Aquatic Plants. > 2.6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish. 0.16 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea. 0.448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants. 2.6 mg/l 72h

[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one
LC50 - for Fish. 2.3 mg/l/96h
EC50 - for Crustacea. 0.86 mg/l/48h

12.2. Persistence and degradability.

SECTION 12. Ecological information. ... / >>

Alcohols, C16-18 and C18-unsatd., ethoxylated
Solubility in water. > 75 mg/l a 20°c
Rapidly biodegradable.

DIMETHICONE
NOT rapidly biodegradable.

Alcohols, C16-18, ethoxylated
Rapidly biodegradable.

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water. 2.68 mg/l
Rapidly biodegradable.

[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one
Solubility in water. 6 mg/l a 23°C
NOT rapidly biodegradable.

12.3. Bioaccumulative potential.

HEXAMETHYLDISILOXANE
Partition coefficient: n-octanol/water. 4.76 Log KOW

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

SECTION 14. Transport information. ... / >>

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	BENZYL ALCOHOL
56-81-5	Glycerol
102-71-6	2,2',2"-nitrilotriethanol

Minnesota:

100-51-6	BENZYL ALCOHOL
56-81-5	Glycerol
102-71-6	2,2',2"-nitrilotriethanol

SECTION 15. Regulatory information. ... / >>

New Jersey:

56-81-5	Glycerol
102-71-6	2,2',2''-nitrilotriethanol

New York:
No component(s) listed.

Pennsylvania:

100-51-6	BENZYL ALCOHOL
56-81-5	Glycerol
102-71-6	2,2',2''-nitrilotriethanol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Acute Tox. 4	Acute toxicity, category 4
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration

SECTION 16. Other information. ... / >>

- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **87057**
Product name **THIS IS A FORMING POMADE, IT'S FOR TEXTURED AND REWORKABLE LOOKS**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

SECTION 2. Hazards identification. ... / >>

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor / . . .
P363 Wash contaminated clothing before reuse.
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Alcohols, C16-18, ethoxylated		
CAS. 68439-49-6	5 - 9	Acute toxicity, category 4 H302, Serious eye damage, category 1 H318
Alcohols, C12-14, ethoxylated		
CAS. 68439-50-9	3 - 5	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
CAS. 54464-57-2	0.1 - 0.25	Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one		
CAS. 32388-55-9	0 - 0.25	Skin sensitization, category 1B H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		compact wax		
Colour		LIGHT YELLOW		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		4,50 - 5,20		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

Lower inflammability limit.	Not available.	
Upper inflammability limit.	Not available.	
Lower explosive limit.	Not available.	
Upper explosive limit.	Not available.	
Vapour pressure.	Not available.	
Vapour density	Not available.	
Relative density.	1,0190 - 1,0290	Kg/l
Solubility	Not available.	
Partition coefficient: n-octanol/water	Not available.	
Auto-ignition temperature.	Not available.	
Decomposition temperature.	Not available.	
Viscosity	Not available.	
Explosive properties	Not available.	
Oxidising properties	Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

Alcohols, C12-14, ethoxylated

LD50 (Oral).	> 2000 mg/kg rat
LD50 (Dermal).	2000 mg/kg male rabbit
LC50 (Inhalation).	> 1.6 mg/l/4h rat

Docosanol, ethoxylated, 20 mol EO (average molar ratio)

LD50 (Oral).	> 2000 mg/kg

Alcohols, C16-18, ethoxylated

LD50 (Oral).	> 300 mg/kg

SECTION 11. Toxicological information. ... / >>

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 5000 mg/kg Rabbit

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
79-10-7 ACRYLIC ACID
ACGIH:: A4
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Alcohols, C12-14, ethoxylated
LC50 - for Fish. 0.876 mg/l/96h Danio rerio
EC50 - for Crustacea. 0.39 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 1.2 mg/l/72h

Alcohols, C16-18, ethoxylated
LC50 - for Fish. > 1 mg/l/96h (dato fornito da Basf)

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LC50 - for Fish. 0.16 mg/l 30d - Danio rerio (mortality post hatch survival)
EC50 - for Crustacea. 1.38 mg/l/48h Daphnia sp,
EC50 - for Algae / Aquatic Plants. > 2.6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish. 0.16 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea. 0.448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants. 2.6 mg/l 72h

[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one
LC50 - for Fish. 2.3 mg/l/96h
EC50 - for Crustacea. 0.86 mg/l/48h

2-hydroxypropane-1,3-diyl didocosanoate
LC50 - for Fish. > 10000 mg/l/96h
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h
Chronic NOEC for Crustacea. > 0.01 mg/l

12.2. Persistence and degradability.

Alcohols, C12-14, ethoxylated
Rapidly biodegradable.

Docosanol, ethoxylated, 20 mol EO (average molar ratio)
Rapidly biodegradable.

Alcohols, C16-18, ethoxylated
Rapidly biodegradable.

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Solubility in water. 2.68 mg/l
Rapidly biodegradable.

[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one
Solubility in water. 6 mg/l a 23°C
NOT rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

12.3. Bioaccumulative potential.

Alcohols, C12-14, ethoxylated
Partition coefficient: n-octanol/water. 4.75

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
79-10-7 ACRYLIC ACID

SECTION 15. Regulatory information. ... / >>

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

EPCRA 313 TRI:

110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

RCRA Code:

110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	BENZYL ALCOHOL
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
56-81-5	Glycerol

Minnesota:

100-51-6	BENZYL ALCOHOL
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
56-81-5	Glycerol

New Jersey:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
56-81-5	Glycerol

New York:

SECTION 15. Regulatory information. ... / >>

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

Pennsylvania:

100-51-6	BENZYL ALCOHOL
1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID
56-81-5	Glycerol

California:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule

SECTION 16. Other information. ... / >>

- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **88001**
Product name **YHA PREP SHAMPOO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Serious eye damage, category 1	Causes serious eye damage.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

SECTION 2. Hazards identification. ... / >>

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS. 156572-81-5	1 - 5	Eye irritation, category 2 H319
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS. 61789-40-0	1 - 3	Serious eye damage, category 1 H318, Hazardous to the aquatic environment, chronic toxicity, category 3 H412
sodium 2-(dodecyloxy)-2-oxoethane-1-sulphonate		
CAS. 1847-58-1	1 - 3	Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
CAS. 54464-57-2	0.1 - 0.5	Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran		
CAS. 1222-05-5	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.

Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		OPAQUE VISCOUS FLUID	
Colour		YELLOWISH	
Odour		Not available.	
Odour threshold.		Not available.	
pH.		5,5 -6,0	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0400 - 1,0500	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		Not available.	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
LD50 (Oral). 2430 mg/kg rat
LD50 (Dermal). > 620 mg/kg rat

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
LD50 (Oral). > 5000 mg/kg Rat
LD50 (Dermal). > 5000 mg/kg Rabbit

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
LD50 (Oral). 8400 mg/kg rat
LD50 (Dermal). > 2000 mg/kg rat

Carcinogenicity Assessment:
5989-27-5

SECTION 11. Toxicological information. ... / >>

(R)-p-mentha-1,8-diene
IARC:3
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts

LC50 - for Fish.	1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish.	0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea.	0.32 mg/l 21 d - Daphnia magna (riproduzione)

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish.	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea.	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea.	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants.	12.5 mg/l Desmodesmus subspicatus 72h

12.2. Persistence and degradability.

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly biodegradable.

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly biodegradable.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

EPCRA 313 TRI:

110-82-7	CYCLOHEXANE

SECTION 15. Regulatory information. ... / >>

67-63-0 PROPAN-2-OL

RCRA Code:
110-82-7 CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL
65-85-0 benzoic acid

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL
140-11-4 benzyl acetate

New Jersey:
56-81-5 GLICERINA FU 30 BE
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL
140-11-4 benzyl acetate
65-85-0 benzoic acid

New York:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
65-85-0 benzoic acid

Pennsylvania:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL
65-85-0 benzoic acid

California:
1310-73-2 SODIUM HYDROXIDE
110-82-7 CYCLOHEXANE
67-63-0 PROPAN-2-OL
140-11-4 benzyl acetate
65-85-0 benzoic acid

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.

Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition

SECTION 16. Other information. ... / >>

- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **88002/3**
Product name **YHA COND FINI SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--
Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
VITAMINA E/DL-ALPHA-TOCOPHEROL		
CAS. 10191-41-0	0.1 - 0.5	Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

SECTION 4. First aid measures. ... / >>

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		WHITE	
Odour		Ref. Std.	
Odour threshold.		Not available.	
pH.		3.5 - 4.5	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9950 - 1,0050	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		10.000 - 120.000	
Explosive properties		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Oxidising properties Not available.

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

EUMULGIN BA 25
LD50 (Oral). > 2000 mg/kg

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

CUTINA MD
LD50 (Oral). > 5000 mg/kg

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

cetrimonium chloride

LC50 - for Fish.	0.71 mg/l/96h
EC50 - for Crustacea.	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.18 mg/l/72h

12.2. Persistence and degradability.

EUMULGIN BA 25
Rapidly biodegradable.

cetrimonium chloride

Solubility in water.	240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride

Partition coefficient: n-octanol/water.	3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA

SECTION 15. Regulatory information. ... / >>

56-81-5 GLICERINA FU 30 BE
140-11-4 benzyl acetate

New Jersey:
56-81-5 GLICERINA FU 30 BE
138-86-3 DIPENTENE
140-11-4 benzyl acetate

New York:
No component(s) listed.

Pennsylvania:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE

California:
140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number

SECTION 16. Other information. ... / >>

- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
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Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

SECTION 16. Other information. ... / >>

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**88003/3**
Product name	**YHA COND MED FINI 1L SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Eye irritation, category 2	Causes serious eye irritation.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

SECTION 2. Hazards identification. ... / >>

P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:

P302+P352 IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
VITAMINA E/DL-ALPHA-TOCOPHEROL		
CAS. 10191-41-0	0.1 - 0.5	Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

SECTION 4. First aid measures. ... / >>

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		CREAM	
Colour		WHITE	
Odour		Ref. Std.	
Odour threshold.		Not available.	
pH.		3.5 - 4.5	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		1,0010 - 1,0110	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		5.000 - 120.000	
Explosive properties		Not available.	

SECTION 9. Physical and chemical properties. ... / >>

Oxidising properties Not available.

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

EUMULGIN BA 25
LD50 (Oral). > 2000 mg/kg

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

CUTINA MD
LD50 (Oral). > 5000 mg/kg

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

cetrimonium chloride

LC50 - for Fish.	0.71 mg/l/96h
EC50 - for Crustacea.	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.18 mg/l/72h

12.2. Persistence and degradability.

EUMULGIN BA 25
Rapidly biodegradable.

cetrimonium chloride

Solubility in water.	240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride

Partition coefficient: n-octanol/water.	3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA

SECTION 15. Regulatory information. ... / >>

56-81-5 GLICERINA FU 30 BE
140-11-4 benzyl acetate

New Jersey:
56-81-5 GLICERINA FU 30 BE
138-86-3 DIPENTENE
140-11-4 benzyl acetate

New York:
No component(s) listed.

Pennsylvania:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE

California:
140-11-4 benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
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H314	Causes severe skin burns and eye damage.
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H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
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- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
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- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
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- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

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The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

SECTION 16. Other information. ... / >>

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **88004/3**
Product name **YHA COND MED GR SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
docosyltrimethylammonium methyl sulphate		
CAS. 81646-13-1	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	CREAM
Colour	WHITE
Odour	Ref. Std.
Odour threshold.	Not available.
pH.	3.5 - 4.5

SECTION 9. Physical and chemical properties. ... / >>

Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9910 - 1,0010	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		10.000 - 120.000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SECTION 11. Toxicological information. ... / >>

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

docosyltrimethylammonium methyl sulphate
LC50 - for Fish. 0.5 mg/l/96h
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.24 mg/l

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

octadecan-1-ol
Rapidly biodegradable.

docosyltrimethylammonium methyl sulphate
Solubility in water. 7 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

SECTION 12. Ecological information. ... / >>

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
140-11-4	benzyl acetate

New Jersey:

56-81-5	GLICERINA FU 30 BE
138-86-3	DIPENTENE
67-63-0	PROPAN-2-OL
140-11-4	benzyl acetate

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
68334-28-1	Oils, vegetable, hydrogenated

California:

67-63-0	PROPAN-2-OL
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

SECTION 15. Regulatory information. ... / >>

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level

SECTION 16. Other information. ... / >>

- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**88005/31**
Product name	**YHA PREP RICH BALM 1L SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 — Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

Additional hazards.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
docosyltrimethylammonium methyl sulphate		
CAS. 81646-13-1	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
CAS. *1222-05-5* 0 - 0.25 Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

VITAMINA E/DL-ALPHA-TOCOPHEROL
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

DIPENTENE
CAS. *138-86-3* 0.1 - 0.25 Flammable liquid, category 3 H226, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures. ... / >>

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles,

SECTION 11. Toxicological information. ... / >>

pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SABONAL C16-95/ALCOOL CETILICO
LD50 (Oral). > 2000 mg/kg rat

SABONALC16-C18 / CETILSTEARIL.
LD50 (Oral). > 2000 mg/kg rat

VITAMINA E/DL-ALPHA-TOCOPHEROL
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

Carcinogenicity Assessment:
67-63-0 ALCOOL ISOPROPILICO
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.18 mg/l/72h

docosyltrimethylammonium methyl sulphate
LC50 - for Fish. 0.5 mg/l/96h
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish. 0.24 mg/l

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

cetrimonium chloride
Solubility in water. 240 mg/l

octadecan-1-ol
Rapidly biodegradable.

docosyltrimethylammonium methyl sulphate
Solubility in water. 7 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-63-0 PROPAN-2-OL

Minnesota:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
67-63-0 PROPAN-2-OL
140-11-4 benzyl acetate

New Jersey:
56-81-5 GLICERINA FU 30 BE

SECTION 15. Regulatory information. ... / >>

138-86-3	DIPENTENE
67-63-0	PROPAN-2-OL
140-11-4	benzyl acetate

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
67-63-0	PROPAN-2-OL
68334-28-1	Oils, vegetable, hydrogenated

California:

67-63-0	PROPAN-2-OL
140-11-4	benzyl acetate

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H226	Flammable liquid and vapour.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road

SECTION 16. Other information. ... / >>

- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

SECTION 16. Other information. ... / >>

Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **79000/3**
Product name **Reinforcing**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Not available**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3. Composition/information on ingredients ... / >>

3.2. Mixtures

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

4. First-aid measures

4.1. Description of first aid measures

Not specifically necessary. Observance of good industrial hygiene is recommended.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

7.2. Conditions for safe storage, including any incompatibilities

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		TRANSPARENT LIQUID	
Colour		YELLOWISH	
Odour		Ref. Std.	
Odour threshold		Not available	
pH		3,5-4,5	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		Not available	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		Not available	
Explosive properties		Not available	
Oxidising properties		Not available	

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

11. Toxicological information ... / >>

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

Information not available

12.2. Persistence and degradability

Information not available

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

15. Regulatory information ... / >>

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
64-17-5 ETHANOL

Minnesota:
64-17-5 ETHANOL

New Jersey:
64-17-5 ETHANOL

New York:
No component(s) listed.

Pennsylvania:
64-17-5 ETHANOL

California:
64-17-5 ETHANOL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)

16. Other information ... / >>

- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **75532**
Product name **DEHC LOVE CURL COWASH 500ML**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.

Precautionary statements:
Prevention:

SECTION 2. Hazards identification. ... / >>

P260 Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor.
P362+P364 Take off contaminated clothing and wash it before reuse.

Storage:
--

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.		**Conc. %***	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
CAS.	*68607-24-9*	3 - 5	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride			
CAS.	*112-02-7*	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran			
CAS.	*1222-05-5*	0 - 0.25	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	Not available.
Colour	Not available.
Odour	Not available.
Odour threshold.	Not available.
pH.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		Not available.	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

Docosanol, ethoxylated, 20 mol EO (average molar ratio)
LD50 (Oral). > 2000 mg/kg

hexadecan-1-ol
LD50 (Oral). > 2000 mg/kg rat

SECTION 11. Toxicological information. ... / >>

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

Glycerides, C14-18 mono- and di-
LD50 (Oral). > 5000 mg/kg

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.08 mg/l/72h
Chronic NOEC for Crustacea. 0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants. 0.08 mg/l/72h

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LC50 - for Fish. 0.452 mg/l/96h
EC50 - for Crustacea. 0.47 mg/l/48h
EC50 - for Algae / Aquatic Plants. > 0.854 mg/l/72h Pseudokirchnerella subcapitata

12.2. Persistence and degradability.

Docosanol, ethoxylated, 20 mol EO (average molar ratio)
Rapidly biodegradable.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

SECTION 12. Ecological information. ... / >>

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

Minnesota:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

New Jersey:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

California:
67-63-0 PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:

SECTION 15. Regulatory information. ... / >>

None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.

SECTION 16. Other information. ... / >>

- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**75528/3**
Product name	**DEHC LOVE CURL COND 1L**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 1	Causes damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H372	Causes damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P270	Do no eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	3 - 5	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
docosyltrimethylammonium methyl sulphate		
CAS. 81646-13-1	0.5 - 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

dodecan-1-ol
CAS. *112-53-8* 0 - 0.5 Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
CAS. *1222-05-5* 0 - 0.25 Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

SECTION 6. Accidental release measures. ... / >>

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

SECTION 11. Toxicological information. ... / >>

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

hexadecan-1-ol
LD50 (Oral). > 2000 mg/kg rat

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish. 3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea. 128 mg/l Daphnia magna (21 d)

cetrimonium chloride
LC50 - for Fish. 0.71 mg/l/96h
EC50 - for Crustacea. 0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants. 0.08 mg/l/72h
Chronic NOEC for Crustacea. 0.08 mg/l

SECTION 12. Ecological information. ... / >>

Chronic NOEC for Algae / Aquatic Plants.	0.08 mg/l/72h

dodecan-1-ol

LC50 - for Fish.	1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

docosyltrimethylammonium methyl sulphate

LC50 - for Fish.	0.5 mg/l/96h
EC50 - for Crustacea.	1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish.	0.24 mg/l

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

LC50 - for Fish.	0.452 mg/l/96h
EC50 - for Crustacea.	0.47 mg/l/48h
EC50 - for Algae / Aquatic Plants.	> 0.854 mg/l/72h Pseudokirchnerella subcapitata

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride

Solubility in water.	240 mg/l

dodecan-1-ol

Solubility in water.	1 mg/l

docosyltrimethylammonium methyl sulphate

Solubility in water.	7 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride

Partition coefficient: n-octanol/water.	3.08 Log Kow

dodecan-1-ol

Partition coefficient: n-octanol/water.	5.36 log Pow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
67-56-1 METHANOL

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
67-56-1 METHANOL

EPCRA 313 TRI:
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

SECTION 15. Regulatory information. ... / >>

RCRA Code:
67-56-1 METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

Minnesota:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

New Jersey:
56-81-5 Glycerol
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

New York:
67-56-1 METHANOL

Pennsylvania:
100-51-6 BENZYL ALCOHOL
56-81-5 Glycerol
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

California:
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.
67-56-1 METHANOL D

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1

SECTION 16. Other information. ... / >>

Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597

SECTION 16. Other information. ... / >>

- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

1. Identification

1.1. Product identifier

Code: **75527**
Product name **DEHC LOVE CURL CONDITIONER 250ML**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Specific target organ toxicity - repeated exposure, category 1	Causes damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H372	Causes damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

2. Hazards identification ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P314	Get medical advice / attention if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice / attention.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS *68607-24-9*	3 ≤ x < 5	**Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC *271-756-9*		
INDEX		
cetrimonium chloride		
CAS *112-02-7*	1 ≤ x < 2	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC *203-928-6*		
INDEX		
docosyltrimethylammonium methyl sulphate		
CAS *81646-13-1*	0 ≤ x < 1	**Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC *279-791-1*		
INDEX		
dodecan-1-ol		
CAS *112-53-8*	0 ≤ x < 1	**Eye irritation, category 2 H319**
EC *203-982-0*		
INDEX		
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran		
CAS *1222-05-5*	0 ≤ x < 0.25	
EC *214-946-9*		
INDEX *603-212-00-7*		

3. Composition/information on ingredients ... / >>

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
CAS *10191-41-0* 0.1 ≤ x < 1 **Skin sensitization, category 1 H317**
EC *233-466-0*
INDEX

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6. Accidental release measures ... / >>

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		LUCID CREAM	
Colour		white	
Odour		STD. REF.	
Odour threshold		Not available	
pH		3,50 - 4,50	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		0,9900 - 1,0000	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		30.000,0000 - 100.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11. Toxicological information ... / >>

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

LD50 (Oral)	> 4000 mg/kg rat
LD50 (Dermal)	1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral)	3190 mg/kg rat
LD50 (Dermal)	3342 mg/kg coniglio

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

dodecan-1-ol

LD50 (Oral)	> 2000 mg/kg rat
LD50 (Dermal)	> 8000 mg/kg

docosyltrimethylammonium methyl sulphate

LD50 (Oral)	3190 mg/kg rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

LD50 (Oral)	> 4640 mg/kg rat
LD50 (Dermal)	> 10000 mg/kg Rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

11. Toxicological information ... / >>

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Causes damage to organs

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and highly toxic for aquatic organisms.
This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish	3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea	128 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish	0.71 mg/l/96h
EC50 - for Crustacea	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.08 mg/l/72h
Chronic NOEC for Crustacea	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

dodecan-1-ol

LC50 - for Fish	1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea	0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

12. Ecological information ... / >>

docosyltrimethylammonium methyl sulphate

LC50 - for Fish	0.5 mg/l/96h
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish	0.24 mg/l

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

LC50 - for Fish	0.452 mg/l/96h
EC50 - for Crustacea	0.47 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 0.854 mg/l/72h Pseudokirchnerella subcapitata

12.2. Persistence and degradability

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly degradable

cetrimonium chloride

Solubility in water	240 mg/l

dodecan-1-ol

Solubility in water	1 mg/l

docosyltrimethylammonium methyl sulphate

Solubility in water	7 mg/l

12.3. Bioaccumulative potential

cetrimonium chloride

Partition coefficient: n-octanol/water	3.08 Log Kow

dodecan-1-ol

Partition coefficient: n-octanol/water	5.36 log Pow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; cetrimonium chloride)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; cetrimonium chloride)
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; cetrimonium chloride)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9

IMDG: Class: 9 Label: 9

IATA: Class: 9 Label: 9

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: Environmentally Hazardous

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (-)
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 450 L Maximum quantity: 450 L A97, A158, A197	Packaging instructions: 964 Packaging instructions: 964

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

67-56-1	METHANOL
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

67-56-1	METHANOL

EPCRA 313 TRI:

67-56-1	METHANOL
67-63-0	PROPAN-2-OL

RCRA Code:

67-56-1	METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL
100-51-6	BENZYL ALCOHOL

Minnesota:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL
100-51-6	BENZYL ALCOHOL

New Jersey:

15. Regulatory information ... / >>

56-81-5	Glycerol
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL
100-51-6	BENZYL ALCOHOL

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule

16. Other information ... / >>

- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking.

1.1. Product identifier.

Code:	**75535**
Product name.	**DEHC LOVE CURL CONTROLLER**

1.2. Relevant identified uses of the substance or mixture and uses advised against.

Intended use.	**professional use**

1.3. Details of the supplier of the safety data sheet.

Name.	**Davines S.p.A.**
Full address.	**Via Ravasini, 9/A**
District and Country.	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax. +39 0521 29 25 97**
e-mail address of the competent person. responsible for the Safety Data Sheet.	**sds@davines.it**

1.4. Emergency telephone number.

For urgent inquiries refer to.	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 1	Causes damage to organs through prolonged or repeated exposure.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H372	Causes damage to organs through prolonged or repeated exposure.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.

SECTION 2. Hazards identification. ... / >>

P270 Do no eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.

Response:

P302+P352 IF ON SKIN: wash with plenty of water.
P314 Get medical advice / attention if you feel unwell.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P363 Wash contaminated clothing before reuse.

Storage:

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Disposal:

P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**x = Conc. %.**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	0 ≤ x < 1	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315
EC. 271-756-9		
INDEX.		
Reg. no. 01-2119484817-22		
2,4-dimethylcyclohex-3-ene-1-carbaldehyde		
CAS. 68039-49-6	0.1 ≤ x < 1	Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317
EC. 268-264-1		
INDEX.		
cetrimonium chloride		
CAS. 112-02-7	0 ≤ x < 0.25	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314
EC. 203-928-6		
INDEX.		
Reg. no. 01-2119970558-23		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.

Specific information on symptoms and effects caused by the product are unknown.
For symptoms and effects caused by the contained substances, see chap. 11.

SECTION 4. First aid measures. ... / >>

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		FLUID CREAM		
Colour		white		
Odour		STD. REF.		
Odour threshold.		Not available.		
pH.		4,50 - 6,00		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		1,0075 - 1,0175		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		4.000,0000 - 10.000,0000		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects.

ACUTE TOXICITY.

LC50 (Inhalation - vapours) of the mixture:	Not classified (no significant component).
LC50 (Inhalation - mists / powders) of the mixture:	Not classified (no significant component).
LD50 (Oral) of the mixture:	Not classified (no significant component).
LD50 (Dermal) of the mixture:	Not classified (no significant component).

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral).	3190 mg/kg rat
LD50 (Dermal).	3342 mg/kg coniglio
LC50 (Inhalation).	> 6 mg/l/1h rat

cetrimonium chloride

LD50 (Oral).	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal).	1600 mg/kg rabbit male/female

2,4-dimethylcyclohex-3-ene-1-carbaldehyde

LD50 (Oral).	3600 mg/kg

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SKIN CORROSION / IRRITATION.
Does not meet the classification criteria for this hazard class.

SERIOUS EYE DAMAGE / IRRITATION.
Does not meet the classification criteria for this hazard class.

RESPIRATORY OR SKIN SENSITISATION.

SECTION 11. Toxicological information. ... / >>

Sensitising for the skin.

GERM CELL MUTAGENICITY.
Does not meet the classification criteria for this hazard class.

CARCINOGENICITY.
Does not meet the classification criteria for this hazard class.

REPRODUCTIVE TOXICITY.
Does not meet the classification criteria for this hazard class.

STOT - SINGLE EXPOSURE.
Does not meet the classification criteria for this hazard class.

STOT - REPEATED EXPOSURE.
Causes damage to organs.

ASPIRATION HAZARD.
Does not meet the classification criteria for this hazard class.

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce harmful effects on aquifers.

12.1. Toxicity.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish.	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea.	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants.	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants.	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish.	3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea.	128 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish.	0.71 mg/l/96h
EC50 - for Crustacea.	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.08 mg/l/72h
Chronic NOEC for Crustacea.	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants.	0.08 mg/l/72h

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride
Solubility in water. 240 mg/l

12.3. Bioaccumulative potential.

cetrimonium chloride
Partition coefficient: n-octanol/water. 3.08 Log Kow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
67-56-1 METHANOL

EPCRA 313 TRI:
67-56-1 METHANOL
67-63-0 PROPAN-2-OL

RCRA Code:
67-56-1 METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL
67-63-0 PROPAN-2-OL

Minnesota:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL
67-63-0 PROPAN-2-OL

New Jersey:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:
56-81-5 Glycerol
100-51-6 BENZYL ALCOHOL
67-63-0 PROPAN-2-OL

California:
67-63-0 PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

SECTION 15. Regulatory information. ... / >>

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit

SECTION 16. Other information. ... / >>

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- WHMIS: Workplace Hazardous Materials Information System.

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- 6 NYCRR part 597
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- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
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- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

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This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

1. Identification

1.1. Product identifier

Code:	**75540**
Product name	**DEHC LOVE CURL CREAM 150ML**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**professional use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

2. Hazards identification

2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms:	--
Signal words:	--
Hazard statements:	--
Precautionary statements:	
Prevention:	--
Response:	--
Storage:	--
Disposal:	--

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3. Composition/information on ingredients ... / >>

3.2. Mixtures

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

4. First-aid measures

4.1. Description of first aid measures

Not specifically necessary. Observance of good industrial hygiene is recommended.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6. Accidental release measures ... / >>

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

7.2. Conditions for safe storage, including any incompatibilities

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		pearly fluid		
Colour		pearly white		
Odour		STD. REF.		
Odour threshold		Not available		
pH		5,00 - 6,00		
Melting point / freezing point		Not available		
Initial boiling point		Not available		
Boiling range		Not available		
Flash point	>	93	°C	(199,4 °F)
Evaporation rate		Not available		
Flammability (solid, gas)		Not available		
Lower inflammability limit		Not available		
Upper inflammability limit		Not available		
Lower explosive limit		Not available		
Upper explosive limit		Not available		
Vapour pressure		Not available		
Vapour density		Not available		
Relative density		1,0140 - 1,0240		
Solubility		Not available		
Partition coefficient: n-octanol/water		Not available		
Auto-ignition temperature		Not available		
Decomposition temperature		Not available		
Viscosity		4.000,0000 - 15.000,0000		
Explosive properties		Not available		
Oxidising properties		Not available		

9. Physical and chemical properties ... / >>

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

11. Toxicological information ... / >>

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3
88-12-0 1-vinyl-2-pyrrolidone
IARC:3
79-10-7 ACRYLIC ACID
ACGIH:: A4
IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

Information not available

12.2. Persistence and degradability

Information not available

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12. Ecological information ... / >>

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:

15. Regulatory information ... / >>

No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

EPCRA 313 TRI:

122-99-6	2-PHENOXYETHANOL (Glycol ethers)
110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

RCRA Code:

110-82-7	CYCLOHEXANE
79-10-7	ACRYLIC ACID

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:

102-71-6	2,2',2''-nitrilotriethanol
100-51-6	BENZYL ALCOHOL
56-81-5	Glycerol

Minnesota:

57-55-6	1,2-PROPANEDIOL
102-71-6	2,2',2''-nitrilotriethanol
100-51-6	BENZYL ALCOHOL
56-81-5	Glycerol

New Jersey:

57-55-6	1,2-PROPANEDIOL
102-71-6	2,2',2''-nitrilotriethanol
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

57-55-6	1,2-PROPANEDIOL
102-71-6	2,2',2''-nitrilotriethanol
100-51-6	BENZYL ALCOHOL
56-81-5	Glycerol

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

15. Regulatory information ... / >>

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"

- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**75531/3**
Product name	**DEHC LOVE CURL MASK 1L SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	3 - 5	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
docosyltrimethylammonium methyl sulphate		
CAS. 81646-13-1	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
dodecan-1-ol		
CAS. 112-53-8	0 - 0.5	Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

2,4-dimethylcyclohex-3-ene-1-carbaldehyde
CAS. *68039-49-6* 0.1 - 0.5 Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 3 H412

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.

SECTION 6. Accidental release measures. ... / >>

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.		
Colour		Not available.		
Odour		Not available.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.		Not available.		
Boiling range.		Not available.		
Flash point.	>	93	°C.	(199,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles,

SECTION 11. Toxicological information. ... / >>

pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

hexadecan-1-ol
LD50 (Oral). > 2000 mg/kg rat

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

dexpantenol
LD50 (Oral). > 10000 mg/kg rat

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

docosyltrimethylammonium methyl sulphate
LD50 (Oral). 3190 mg/kg rat

2,4-dimethylcyclohex-3-ene-1-carbaldehyde
LD50 (Oral). 3600 mg/kg

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

dexpantenol
LC50 - for Fish. > 1000 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. > 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish. > 1000 mg/l 96h
Chronic NOEC for Crustacea. 100 mg/l 48h
Chronic NOEC for Algae / Aquatic Plants. 100 mg/l 72h

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LC50 - for Fish. 3.5 mg/l/96h Danio rerio
EC50 - for Crustacea. 1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants. 3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants. 0.78 mg/l/72h Desmodesmus subspicatus (growth rate)

SECTION 12. Ecological information. ... / >>

Chronic NOEC for Fish.	3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea.	128 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish.	0.71 mg/l/96h
EC50 - for Crustacea.	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.08 mg/l/72h
Chronic NOEC for Crustacea.	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants.	0.08 mg/l/72h

dodecan-1-ol

LC50 - for Fish.	1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

docosyltrimethylammonium methyl sulphate

LC50 - for Fish.	0.5 mg/l/96h
EC50 - for Crustacea.	1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish.	0.24 mg/l

12.2. Persistence and degradability.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride

Solubility in water.	240 mg/l

dodecan-1-ol

Solubility in water.	1 mg/l

docosyltrimethylammonium methyl sulphate

Solubility in water.	7 mg/l

12.3. Bioaccumulative potential.

dexpantenol

Partition coefficient: n-octanol/water.	-106 mg/l Log KOW

cetrimonium chloride

Partition coefficient: n-octanol/water.	3.08 Log Kow

dodecan-1-ol

Partition coefficient: n-octanol/water.	5.36 log Pow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	BENZYL ALCOHOL
56-81-5	Glycerol
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	BENZYL ALCOHOL
56-81-5	Glycerol
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	BENZYL ALCOHOL
56-81-5	Glycerol
67-63-0	PROPAN-2-OL

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2

SECTION 16. Other information. ... / >>

Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

SECTION 16. Other information. ... / >>

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

1. Identification

1.1. Product identifier

Code: **75530**
Product name **DEHC LOVE CURL MASK 250ML SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **prodotto cosmetico non allo stato finito - uso professionale/industriale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

2. Hazards identification ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P314	Get medical advice / attention if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice / attention.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS 68607-24-9	3 ≤ x < 5	**Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC 271-756-9		
INDEX		
docosyltrimethylammonium methyl sulphate		
CAS 81646-13-1	2.5 ≤ x < 3	**Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC 279-791-1		
INDEX		
cetrimonium chloride		
CAS 112-02-7	1 ≤ x < 2	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC 203-928-6		
INDEX		
Quaternium 87		
CAS 92201-88-2	1 ≤ x < 2	**Skin irritation, category 2 H315**
EC 296-019-9		
INDEX		
dodecan-1-ol		
CAS 112-53-8	0 ≤ x < 1	**Eye irritation, category 2 H319**
EC 203-982-0		
INDEX		
2,4-dimethylcyclohex-3-ene-1-carbaldehyde		
CAS 68039-49-6	0.1 ≤ x < 1	**Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317**
EC 268-264-1		
INDEX		

3. Composition/information on ingredients ... / >>

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
CAS *10191-41-0* 0.1 ≤ x < 1 **Skin sensitization, category 1 H317**
EC *233-466-0*
INDEX

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6. Accidental release measures ... / >>

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		LUCID CREAM	
Colour		light cream	
Odour		STD. REF.	
Odour threshold		Not available	
pH		3,50 - 4,50	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		0,9913 - 1,0013	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		50.000,0000 - 100.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11. Toxicological information ... / >>

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

LD50 (Oral)	> 4000 mg/kg rat
LD50 (Dermal)	1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral)	3190 mg/kg rat
LD50 (Dermal)	3342 mg/kg coniglio

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

dodecan-1-ol

LD50 (Oral)	> 2000 mg/kg rat
LD50 (Dermal)	> 8000 mg/kg

docosyltrimethylammonium methyl sulphate

LD50 (Oral)	3190 mg/kg rat

2,4-dimethylcyclohex-3-ene-1-carbaldehyde

LD50 (Oral)	3600 mg/kg

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:

11. Toxicological information ... / >>

67-63-0 PROPAN-2-OL
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

May cause damage to organs

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and highly toxic for aquatic organisms.
This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish	3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea	128 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish	0.71 mg/l/96h
EC50 - for Crustacea	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.08 mg/l/72h
Chronic NOEC for Crustacea	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

dodecan-1-ol

LC50 - for Fish	1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea	0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

12. Ecological information ... / >>

docosyltrimethylammonium methyl sulphate

LC50 - for Fish	0.5 mg/l/96h
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish	0.24 mg/l

12.2. Persistence and degradability

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly degradable

cetrimonium chloride

Solubility in water	240 mg/l

dodecan-1-ol

Solubility in water	1 mg/l

docosyltrimethylammonium methyl sulphate

Solubility in water	7 mg/l

12.3. Bioaccumulative potential

cetrimonium chloride

Partition coefficient: n-octanol/water	3.08 Log Kow

dodecan-1-ol

Partition coefficient: n-octanol/water	5.36 log Pow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.

14. Transport information ... / >>

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; docosyltrimethylammonium methyl sulphate)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; docosyltrimethylammonium methyl sulphate)
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; docosyltrimethylammonium methyl sulphate)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9

IMDG: Class: 9 Label: 9

IATA: Class: 9 Label: 9

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: Environmentally Hazardous

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (-)
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Pass.:	Maximum quantity: 450 L	Packaging instructions: 964
	Special Instructions:	A97, A158, A197	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

15. Regulatory information ... / >>

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL
100-51-6	BENZYL ALCOHOL

Minnesota:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL
100-51-6	BENZYL ALCOHOL

New Jersey:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL
100-51-6	BENZYL ALCOHOL

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

15. Regulatory information ... / >>

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train

16. Other information ... / >>

- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

1. Identification

1.1. Product identifier

Code: **75533**
Product name **DEHC LOVE CURL PRIMER 150ML**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Specific target organ toxicity - repeated exposure, category 1	Causes damage to organs through prolonged or repeated exposure.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H372	Causes damage to organs through prolonged or repeated exposure.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

2. Hazards identification ... / >>

P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves.
Response:
P302+P352 IF ON SKIN: wash with plenty of water.
P314 Get medical advice / attention if you feel unwell.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P363 Wash contaminated clothing before reuse.
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS 68607-24-9	0 ≤ x < 1	**Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC 271-756-9		
INDEX		
PPG-6, Dihydroxyethyl stearamonium methosulfate copolymer of adipic and dilinoleic acids		
CAS 856175-34-3	0.25 ≤ x < 1	**Serious eye damage, category 1 H318**
EC		
INDEX		
docosyltrimethylammonium methyl sulphate		
CAS 81646-13-1	0 ≤ x < 1	**Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC 279-791-1		
INDEX		
2,4-dimethylcyclohex-3-ene-1-carbaldehyde		
CAS 68039-49-6	0.1 ≤ x < 1	**Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317**
EC 268-264-1		
INDEX		
cetrimonium chloride		
CAS 112-02-7	0 ≤ x < 0.25	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC 203-928-6		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

4. First-aid measures ... / >>

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may

7. Handling and storage ... / >>

occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		LIQUID CREAM		
Colour		white		
Odour		STD. REF.		
Odour threshold		Not available		
pH		3,50 - 4,80		
Melting point / freezing point		Not available		
Initial boiling point		Not available		
Boiling range		Not available		
Flash point	>	93	°C	(199,4 °F)
Evaporation rate		Not available		
Flammability (solid, gas)		Not available		
Lower inflammability limit		Not available		

9. Physical and chemical properties ... / >>

Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0014 - 1,0114
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	2.000 - 4.000
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

11. Toxicological information ... / >>

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral)	3190 mg/kg rat
LD50 (Dermal)	3342 mg/kg coniglio

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

docosyltrimethylammonium methyl sulphate

LD50 (Oral)	3190 mg/kg rat

2,4-dimethylcyclohex-3-ene-1-carbaldehyde

LD50 (Oral)	3600 mg/kg

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:

64-17-5	ETHANOL
	ACGIH:: A3
	IARC:1
67-63-0	PROPAN-2-OL
	IARC:3
5989-27-5	(R)-p-mentha-1,8-diene
	IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Causes damage to organs

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish	3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea	128 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish	0.71 mg/l/96h
EC50 - for Crustacea	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.08 mg/l/72h
Chronic NOEC for Crustacea	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

docosyltrimethylammonium methyl sulphate

LC50 - for Fish	0.5 mg/l/96h
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish	0.24 mg/l

PPG-6, Dihydroxyethyl stearamonium methosulfate copolymer of adipic and dilinoleic acids

EC50 - for Crustacea	1 mg/l/48h
Chronic NOEC for Crustacea	> 500 mg/l

12.2. Persistence and degradability

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly degradable

cetrimonium chloride

Solubility in water	240 mg/l

docosyltrimethylammonium methyl sulphate

Solubility in water	7 mg/l

PPG-6, Dihydroxyethyl stearamonium methosulfate copolymer of adipic and dilinoleic acids
NOT rapidly degradable

12.3. Bioaccumulative potential

12. Ecological information ... / >>

cetrimonium chloride

Partition coefficient: n-octanol/water 3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

15. Regulatory information ... / >>

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

67-56-1	METHANOL
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

67-56-1	METHANOL

EPCRA 313 TRI:

67-56-1	METHANOL
67-63-0	PROPAN-2-OL

RCRA Code:

67-56-1	METHANOL

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:

56-81-5	Glycerol
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
9004-34-6	Cellulose
67-63-0	PROPAN-2-OL

Minnesota:

56-81-5	Glycerol
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
9004-34-6	Cellulose
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	Glycerol
64-17-5	ETHANOL
9004-34-6	Cellulose
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

15. Regulatory information ... / >>

Pennsylvania:

56-81-5	Glycerol
64-17-5	ETHANOL
100-51-6	BENZYL ALCOHOL
9004-34-6	Cellulose
67-63-0	PROPAN-2-OL

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency

16. Other information ... / >>

- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

1. Identification

1.1. Product identifier

Code: **75534**
Product name **DEHC LOVE CURL RECHARGER 250ML**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement
Flammable liquid, category 3 — Flammable liquid and vapour.

Hazard pictograms:

Signal words: Warning

Hazard statements:
H226 Flammable liquid and vapour.

Precautionary statements:
Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground / bond container and receiving equipment.
P241 Use explosion-proof electrical / ventilating / lighting / . . . / equipment.
P242 Use only non-sparking tools.

2. Hazards identification ... / >>

P243 Take precautionary measures against static discharge.
P280 Wear protective gloves / eye protection / face protection.
Response:
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
P370+P378 In case of fire: use carbon dioxide, foam, chemical powder to extinguish.
Storage:
P403+P235 Store in a well-ventilated place. Keep cool.
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification		**x = Conc. %**	**Classification:**
ETHANOL			
CAS	*64-17-5*	30 ≤ x < 50	**Flammable liquid, category 2 H225**
EC	*200-578-6*		
INDEX	*603-002-00-5*		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5. Fire-fighting measures ... / >>

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2016

ETHANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		clear liquid		
Colour		pale antique pink		
Odour		STD. REF.		
Odour threshold		Not available		
pH		4,00 - 8,00		
Melting point / freezing point		Not available		
Initial boiling point	>	35 °C	(95 °F)	
Boiling range		Not available		
Flash point		28 °C		(82,4 °F)
Evaporation rate		Not available		
Flammability (solid, gas)		Not available		

9. Physical and chemical properties ... / >>

Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	0,9554 - 0,9654
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

ETHANOL
Risk of explosion on contact with: alkaline metals,alkaline oxides,calcium hypochlorite,sulphur monofluoride,acetic anhydride,acids,concentrated hydrogen peroxide,perchlorates,perchloric acid,perchloronitrile,mercury nitrate,nitric acid,silver,silver nitrate,ammonia,silver oxide,ammonia,strong oxidising agents,nitrogen dioxide.May react dangerously with: bromoacetylene,chlorine acetylene,bromine trifluoride,chromium trioxide,chromyl chloride,fluorine,potassium tert-butoxide,lithium hydride,phosphorus trioxide,black platinum,zirconium (IV) chloride,zirconium (IV) iodide.Forms explosive mixtures with: air.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ETHANOL
Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

11. Toxicological information

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

11. Toxicological information ... / >>

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

ETHANOL
LD50 (Oral) > 5000 mg/kg Rat

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

12. Ecological information ... / >>

Information not available

12.2. Persistence and degradability

ETHANOL

Solubility in water 1000 - 10000 mg/l
Rapidly degradable

12.3. Bioaccumulative potential

ETHANOL

Partition coefficient: n-octanol/water -0.35

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 1170

14.2. UN proper shipping name

ADR / RID: ETHANOL (ETHYL ALCOHOL) or ETHANOL
IMDG: ETHANOL (ETHYL ALCOHOL) or ETHANOL
IATA: ETHANOL (ETHYL ALCOHOL) or ETHANOL

14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group

ADR / RID, IMDG, IATA: II

14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 33	Limited Quantities: 1 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-D	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3, A58, A180	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:

15. Regulatory information ... / >>

No component(s) listed.

State Regulations

Massachussetts:

64-17-5	ETHANOL
56-81-5	Glycerol

Minnesota:

64-17-5	ETHANOL
56-81-5	Glycerol

New Jersey:

64-17-5	ETHANOL
56-81-5	Glycerol

New York:
No component(s) listed.

Pennsylvania:

64-17-5	ETHANOL
56-81-5	Glycerol

California:

64-17-5	ETHANOL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%

16. Other information ... / >>

- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

1. Identification

1.1. Product identifier

Code: **75524**
Product name **DEHC LOVE CURL SHAMPOO 250ML**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Serious eye damage, category 1	Causes serious eye damage.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

2. Hazards identification ... / >>

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Sodium 2- (dodecanoyloxy) propane -1- sulfonate		
CAS 156572-81-5	2 ≤ x < 5	**Eye irritation, category 2 H319**
EC 700-150-3		
INDEX		
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts		
CAS 61789-40-0	2 ≤ x < 3	**Serious eye damage, category 1 H318**
EC		
INDEX		
sodium 2-(dodecyloxy)-2-oxoethane-1-sulphonate		
CAS 1847-58-1	1 ≤ x < 2	**Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335**
EC 217-431-7		
INDEX		
Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts		
CAS 68650-39-5	1 ≤ x < 2	**Serious eye damage, category 1 H318**
EC 272-043-5		
INDEX		
glicina,-N-cocco-acil-derivati,-sali-di-sodio		
CAS 90387-74-9	1 ≤ x < 2	**Serious eye damage, category 1 H318**
EC 291-350-5		
INDEX		
PPG-6, Dihydroxyethyl stearamonium methosulfate copolymer of adipic and dilinoleic acids		
CAS 856175-34-3	0.25 ≤ x < 1	**Serious eye damage, category 1 H318**
EC		
INDEX		
2,4-dimethylcyclohex-3-ene-1-carbaldehyde		
CAS 68039-49-6	0.1 ≤ x < 1	**Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317**
EC 268-264-1		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

4. First-aid measures ... / >>

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		OPAQUE VISCOUS FLUID	
Colour		LIGHT YELLOW	
Odour		STD. REF.	
Odour threshold		Not available	
pH		5,00 - 6,00	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	

9. Physical and chemical properties ... / >>

Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,0434 - 1,0534
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	4.000,0000 - 7.000,0000
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
1-PROPANAMINIUM, 3-AMINO-N-(CARBOXYMETHYL)-N,N-DIMETHYL-, N-(C12-18(EVEN NUMBERED) ACYL) DERIVS., HYDROXIDES, INNER SALTS :
IRRITAZIONE/CORROSIONE - Non irritante per la pelle. Corrosivo per gli occhi (OECD 405 Acute Eye Irritation/Corrosion).
SENSIBILIZZANTE - Non provoca sensibilizzazione.
MUTAGENICITà - Nessun effetto mutageno.
CANCEROGENICITà - In conformità al paragrafo 1 della normativa (CE) 1907/2006, appendice XI, questo test non sembra necessario a livello scientifico.
TOSSICITà PER LA RIPRODUZIONE - Ai sensi della colonna 2 dell'allegato VII - X della normativa (CE) 1907/2006, non è necessario eseguire il test di questa proprietà della sostanza.
TERATOGENICITà - 300 mg/kg NOAEL (ratto) OECD 414 Prenatal Developmental Toxicity Study

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

11. Toxicological information ... / >>

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts

LD50 (Oral)	2430 mg/kg rat
LD50 (Dermal)	> 620 mg/kg rat

2,4-dimethylcyclohex-3-ene-1-carbaldehyde

LD50 (Oral)	3600 mg/kg

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LD50 (Oral)	8400 mg/kg rat
LD50 (Dermal)	> 2000 mg/kg rat

glicina,-N-cocco-acil-derivati,-sali-di-sodio

LD50 (Oral)	> 2000 mg/kg Ratto
LD50 (Dermal)	> 2000 mg/kg ratto

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:

5989-27-5	(R)-p-mentha-1,8-diene
	IARC:3
67-63-0	PROPAN-2-OL
	IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

11. Toxicological information ... / >>

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts

LC50 - for Fish	1.11 mg/l/96h Pimephales promelas
EC50 - for Crustacea	1.9 mg/l/48h Daphnia magna
Chronic NOEC for Fish	0.135 mg/l 100 d - Oncorhynchus mykiss
Chronic NOEC for Crustacea	0.32 mg/l 21 d - Daphnia magna (riproduzione)

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts

LC50 - for Fish	> 10 mg/l/96h
EC50 - for Crustacea	> 10 mg/l/48h Daphnia magna

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish	> 25 mg/l/96h Salmo gairdneri
EC50 - for Crustacea	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants	12.5 mg/l Desmodesmus subspicatus 72h

glicina,-N-cocco-acil-derivati,-sali-di-sodio

EC50 - for Crustacea	2.8 mg/l/48h Daphnia magna (mobility)
EC50 - for Algae / Aquatic Plants	61 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish	29.8 mg/l Danio rerio (96h)

PPG-6, Dihydroxyethyl stearamonium methosulfate copolymer of adipic and dilinoleic acids

EC50 - for Crustacea	1 mg/l/48h
Chronic NOEC for Crustacea	> 500 mg/l

12.2. Persistence and degradability

1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts
Rapidly degradable

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly degradable

12. Ecological information ... / >>

glicina,-N-cocco-acil-derivati,-sali-di-sodio
Rapidly degradable

PPG-6, Dihydroxyethyl stearamonium methosulfate copolymer of adipic and dilinoleic acids
NOT rapidly degradable

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:

1310-73-2	SODIUM HYDROXIDE
110-82-7	CYCLOHEXANE
65-85-0	benzoic acid

EPCRA 313 TRI:

110-82-7	CYCLOHEXANE
67-63-0	PROPAN-2-OL

RCRA Code:

110-82-7	CYCLOHEXANE

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:

56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL

Minnesota:

56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL

New Jersey:

56-81-5	Glycerol

15. Regulatory information ... / >>

New York:
No component(s) listed.

Pennsylvania:

56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
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Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **62148**
Product name **MASK HAIR BLEACHING POWDER**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Acute toxicity, category 4	Harmful if swallowed.
Skin corrosion, category 1B	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Specific target organ toxicity - single exposure, category 3	May cause respiratory irritation.
Respiratory sensitization, category 1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.

SECTION 2. Hazards identification. ... / >>

H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P270	Do no eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / clothing and eye / face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.

Response:

P301+P312	IF SWALLOWED: call a POISON CENTER / doctor / . . . / if you feel unwell.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.

Storage:

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Potassium persulphate		
CAS. 7727-21-1	24 - 40	Explosive, division 1.5 H205, Oxidising solid, category 3 H272, Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Respiratory sensitization, category 1 H334, Skin sensitization, category 1 H317
DISODIUM METASILICATE		
CAS. 6834-92-0	9 - 20	Skin corrosion, category 1B H314, Specific target organ toxicity - single exposure, category 3 H335
AMMONIUM PEROXYDISULPHATE		
CAS. 7727-54-0	10 - 20	Oxidising solid, category 3 H272, Acute toxicity, category 4 H302, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Respiratory sensitization, category 1 H334, Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SECTION 4. First aid measures. ... / >>

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
If there are no contraindications, spray powder with water to prevent the formation of dust. Avoid breathing vapours/mists/gases.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Use spark-proof mechanical equipment to collect the leaked product and place it in containers for recovery or disposal. If there are no contraindications, use jets of water to eliminate product residues.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed.
Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

SECTION 7. Handling and storage. ... / >>

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

AMMONIUM PEROXYDISULPHATE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	0.1			

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
In the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (OSHA 29 CFR 1910.138).
Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.
RESPIRATORY PROTECTION
None required, unless indicated otherwise in the chemical risk assessment.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	powder
Colour	WHITE
Odour	Not available.
Odour threshold.	Not available.
pH.	9,6 - 10,6
Melting point / freezing point.	Not available.
Initial boiling point.	Not applicable.
Boiling range.	Not available.
Flash point.	Not applicable.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	Not available.
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Decomposition temperature.	> 65°C
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
The product can decompose and/or react violently.

SOLVENT NAPHTHA (PETROLEUM), HEAVY AROM: can form flammable mixtures with the air.

10.2. Chemical stability.
See previous paragraph.

10.3. Possibility of hazardous reactions.
See paragraph 10.1.

DISODIUM METASILICATE: may react dangerously with fluorine and lithium.

10.4. Conditions to avoid.
As the product decomposes even at ambient temperature, it must be stored and used at a controlled temperature. Avoid violent blows.

10.5. Incompatible materials.
DISODIUM METASILICATE: in aqueous solution it is incompatible with acids, organic anhydrides, acrilates, alcohols, aldehydes, alkyl oxides, cresoles, caprolactam solutions, epichlorohydrin, ethylene dichloride; glycols, isocyanates, ketones, nitrates, phenols and vinyl acetate.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Acute effects: ingestion of this product is harmful. Even small amounts of product may cause serious health problems (stomach pain, nausea, sickness, diarrhoea).
This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration.
The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: inhalation of this product may irritate the lower and upper respiratory tract and cause cough and respiratory disorders; at higher concentrations it can also cause pulmonary edema. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Inhalation of this product causes sensitization, which may then give rise to a series of inflammatory episodes, most of all characterized by obstruction and affecting the respiratory system. Sometimes, sensitization phenomena arise together with evident rhinitis and asthma.
Damages to the respiratory system depend on the inhaled quantity, on the product concentration in the working environment and on the exposure time.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

DISODIUM METASILICATE
LD50 (Oral). 600 mg/kg Rat

AMMONIUM PEROXYDISULPHATE
LD50 (Oral). 495 mg/kg Rat
LD50 (Dermal). 2000 mg/kg Rat
LC50 (Inhalation). 2.95 mg/l/4h Rat

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

DISODIUM METASILICATE
Solubility in water. 210000 mg/l
Biodegradability: Information not available.

AMMONIUM PEROXYDISULPHATE
Solubility in water. > 10000 mg/l
Biodegradability: Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1479

14.2. UN proper shipping name.

ADR / RID: OXIDIZING SOLID, N.O.S. (POTASSIUM PERSULPHATE, AMMONIUM PERSULPHATE)
IMDG: OXIDIZING SOLID, N.O.S. (POTASSIUM PERSULPHATE, AMMONIUM PERSULPHATE)
IATA: OXIDIZING SOLID, N.O.S. (POTASSIUM PERSULPHATE, AMMONIUM PERSULPHATE)

SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID:	Class: 5.1	Label: 5.1	
IMDG:	Class: 5.1	Label: 5.1	
IATA:	Class: 5.1	Label: 5.1	

14.4. Packing group.

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 50 Special Provision: -	Limited Quantities: 5 kg	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-Q	Limited Quantities: 5 kg	
IATA:	Cargo:	Maximum quantity: 100 Kg	Packaging instructions: 563
	Pass.:	Maximum quantity: 25 Kg	Packaging instructions: 559
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
7727-21-1 Potassium persulphate

Minnesota:
No component(s) listed.

New Jersey:
7727-54-0 AMMONIUM PEROXYDISULPHATE
7727-21-1 Potassium persulphate

New York:
No component(s) listed.

Pennsylvania:
7727-21-1 Potassium persulphate

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Expl. 1.5	Explosive, division 1.5
Ox. Sol. 3	Oxidising solid, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1

SECTION 16. Other information. ... / >>

Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Resp. Sens. 1	Respiratory sensitization, category 1
Skin Sens. 1	Skin sensitization, category 1
H205	May mass explode in fire.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act

SECTION 16. Other information. ... / >>

- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 03 / 08 / 10 / 11 / 16.

KIK Gainesville CUSTOM PRODUCTS
2030 Old Candler Road
Gainesville, GA 30507
Phone: 770-534-0300
Fax: 770-531-6180

DAVINES

MEDIUM HOLD 55%VOC

Section I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS FIRST PREPARATION DATE: June 25, 2013
REVISION DATE:
SUPERSEDES:
FORMULA: # **B-9084**
PREPARED AND REVISED BY: Chi le
GENERIC/CHEMICAL NAME: Aerosol Hair Spray
PRODUCT TYPE/CHEMICAL FAMILY: NA
PRODUCT CODE: Gainesville
SYNONYMS: None

CONTACT ADDRESS: **KIK Custom Products Gainesville, Inc., 2030 Old Candler Road, Gainesville, GA. 30507**

EMERGENCY PHONE NUMBERS:
KIK Custom product Gainesville : (770) 534-0300 Monday - Friday, 8:00 am – 5:00 pm EDT
Chem-tel: (800) 255-3924 – **24-Hours** Contract number: #MIS0002907

Section II - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No	Percent	Hazardous
1,1-Difluoro-Ethane	75-37-6	40.0%	Yes
Ethanol	64-17-5	54.9%	Yes

Section III - HAZARDS INDENTIFICATION

POTENTIAL HEALTH EFFECTS
EYE CONTACT: Direct contact of product with eyes may cause irritation, and may result in irreversible damage.
SKIN CONTACT: Not Known
INHALATION: Not Known
INGESTION: If ingested, may cause nausea and vomiting. If in aerosol form, ingestion is not likely.

Section IV - FIRST AID

EYE CONTACT: If irritation or redness due to vapors develops, move victim away from exposure and into fresh air. If material gets into the eyes, flush eyes immediately with clean water for at least 15 minutes. If available, use eye-cups or eye wash fountain. If symptoms persist, get medical attention.

SKIN CONTACT: Clean affected areas with mild soap and water. Remove contaminated clothing, including shoes, and launder before reuse or discard.

symptoms persist, get medical attention. If victim is not breathing immediately begin artificial respiration. Get medical attention.

INGESTION: Product is not likely to be ingested. If this occurs, treat systematically. Never give fluids or induce vomiting if the victim is unconscious or having convulsions

Section V - FIRE FIGHTING MEASURES

FLASH POINT: -30°F TCC (Propellant Only), Concentrate 36°F (EPA Method 1010)
AUTOIGNITION TEMPERATURE: NA
FLAMMABILITY LIMITS IN AIR (% V): LEL=1.8%; UEL=9.5%
EXTINGUISHING MEDIA: Carbon Dioxide, Foam, Dry Chemical, Water
SPECIAL FIRE FIGHTING PROCEDURES: Keep containers cool by spraying them with water until the fire has been extinguished.
UNUSUAL FIRE & EXPLOSION HAZARDS: Containers may rupture and release flammable liquids and /or gasses if exposed to the heat of fire.

Section VI - ACCIDENTIAL RELEASE MEASURES

SPILL ON LAND (LARGE SPILL): Eliminate sources of ignition. Prevent additional discharge of material, if possible to do so without risk. Minimize breathing of vapors. Minimize skin contact. Ventilate confined spaces. For small spills implement the following cleanup procedures: Prevent material from entering sewers, watercourses, or low areas. Contain spilled material with sand or earth. Do not use combustible materials such as sawdust. Observe precautions for volatile, combustible vapors from absorbed material. For large spills implement the preceding cleanup procedures and, if in public area, keep public away and advise authorities. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

SPILL ON WATER (LARGE SPILL): Eliminate sources of ignition. Warn occupants and shipping in surrounding and downwind areas of fire and explosion hazard and request all to stay clear. Remove from surface by skimming or scooping up floating material. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

SMALL SPILLS: Leaking containers should be placed in open containers, outdoors, away from any source of ignition, until all pressure has been released.

Section VII - STORAGE AND HANDLING

STORAGE TEMPERATURE: Ambient Level 1
STORAGE/TRANSPORT PRESSURE: 179 psig @ 131°F Max
LOADING/UNLOADING TEMPERATURE: Ambient

STORAGE AND HANDLING: Keep container closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. DO NOT handle or store near an open flame, heat, or other source of ignition. DO NOT pressurize, cut, heat, or weld empty containers. DO NOT reuse containers.

Section VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: None Required
VENTILATION: Normal Ventilation adequate for recommended uses.
PROTECTIVE CLOTHING: Not necessary except as a good industrial practice.
EYE PROTECTION: Not necessary except as a good industrial practice.
OTHER PRECAUTIONS: Avoid excessive inhalation. Read and follow all label directions and cautions. Use only as directed

Section IX - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: clear, light yellow liquid
STATE: Aerosol
ODOR: Characteristic

SPECIFIC GRAVITY: 0.82- 0.85
VISCOSITY: Aerosol @ ambient
EVAPORATION RATE, >1
VAPOR PRESSURE mm Hg @ 20°C: Can pressure not to exceed 179 psig @ 131°F
BOILING POINT: Unknown
VAPOR DENSITY (Air=1): >1
SOLUBILITY IN WATER: Soluble

Section X - REACTIVITY

STABILITY: Stable under normal conditions of storage and handling
CONDITIONS TO AVOID INSTABILITY: Do not store containers in direct sunlight or where conditions will heat them above 120°F.
HAZARDOUS POLYMERIZATON: Will not occur
CONDITIONS TO AVOID HAZARDOUS POLYMERIZATION: Not Applicable
MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY: None Known

Section XI - TOXICOLOGICAL INFORMATION

No specific toxicological data is available for this product. Please refer to Section III for available information on potential health effects.

Section XII - ECOLOGICAL INFORMATION

No specific ecological data are available for this product. Please refer to Section VI for information regarding accidental releases and Section XV for regulatory reporting information

Section XIII - DISPOSAL CONSIDERATIONS

All recovered material should be packaged, labeled, transported, disposed and reclaimed in conformance with local, county, state, and federal regulations. May be disposed of by controlled incineration. Do not contaminate any lakes, streams, ponds, or underground water supplies.
Empty containers may be disposed of as normal refuse. Please recycle whenever possible.

Section XIV - TRANSPORT INFORMATION

U. S. DOT PROPER SHIPPING NAME:	Consumer Commodity
U. S. DOT HAZARD CLASS:	Limited Quantity
U. S. DOT LABELS REQUIRED:	None
U. S. DOT PLACARDS REQUIRED:	None
EMERGENCY RESPONSE GUIDE NUMBER:	NAERG# 171

IATA PROPER SHIPPING NAME:	Consumer Commodity Limited Quantity Aerosols, Flammable, N.O.S., UN1950 (Export)
IATA HAZARD CLASS:	2.1
IATA LABELS REQUIRED:	Consumer Commodity Air Ldt qty marking (Domestic) Flammable Gas (Export)
BILL OF LADING DESCRIPTION:	UN 1950 Aerosols, 2.1 (-34.4^{0}C c.c) Aerosols, Flammable, N.O.S., 2.1, UN1950 (Export)
UN/NA CODE:	NA (Domestic) UN1950 (Export)
PACKING INSTRUCTIONS:	910 (Domestic) 203/Y203 (Export) Authorization: Limited Quantity
EMERGENCY RESPONSE GUIDE NUMBER:	126
EMERGENCY RESPONSE NUMBERS:	CHEM-TEL: 1-813-979-0626 US & Canada Only: 1-800-255-3924 International: 00-1-813979-0626

IMDG PROPER SHIPPING NAME:	UN 1950, Aerosols, 2.1. LTD. QTY
IMDG HAZARD CLASS:	2.1
IMDG LABELS REQUIRED:	**none**
IMDG SECONDARY LABELS REQUIRED:	**none**
IMDG PLACARDS REQUIRED:	None
BILL OF LADING DESCRIPTION:	Aerosol, 2, UN1950
MARINE POLLUTANT:	No
EMERGENCY RESPONSE GUIDE NUMBER:	126
EMS NUMBER:	F-D, S-U
MFAG NUMBER:	620
EMERGENCY RESPONSE NUMBERS:	CHEM-TEL: 1-813-979-0626 US & Canada Only: 1-800-255-3924 International: 00-1-813979-0626
IMDG PAGE NUMBER:	2102
UN/NA CODE:	UN1950

Section XV - REGULATORY INFORMATION

TSCA: Components of this product are listed on the Toxic Substances Control Act (TSCA) Inventory
SARA TITLE III, Section 311-312: Acute, Fire, Sudden Release (1,1-Difluoro-Ethane);
Acute and Fire Hazard (Ethanol, 1,1-Difluoro-Ethane)
SARA TITLE III, Section 313: None noted
CALIFORNIA PROPOSITION 65: Not Regulated

Section XVI - OTHER INFORMATION

HAZARD RATING SYSTEMS: This information is for people trained in: National Paint & Coatings Association's (NPCA) Hazardous Materials Identification System (HMIS) and/or National Fire Protection Association (NFPA 704) Identification of the Fire Hazards of Materials.

	NPCA-HMIS	**NFPA 704**	**KEY:NPCA-HMIS/NFPA 704**
HEALTH	2	NA	4=Severe/Extreme
FLAMMABILITY	4	NA	3=Serious/High
REACTIVITY	1	NA	2=Moderate/Moderate
			1=Slight/Slight
			0=Minimal/Insignificant

NOTE: The information presented herein for this product or its components has been compiled from different supplier sources considered to be dependable and is accurate to the best of our knowledge as to the proper use and handling of this product under normal conditions. However, no representation, warranty, or guarantee is made as to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information. Any use of this product which is not in conformance with this MSDS or which involves using the product in combination with any other product or any process is the responsibility of the user. EXPLANATION OF ABBREVIATIONS:
CAS# - Chemical Abstract System No.
DOT -Department Of Transportation
IMDG - International Maritime Dangerous Goods code
NA - Not Applicable
ND - Not Determined
NFPA - National Fire Protection Association
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limits
SARA - Superfund Amendments and Reauthorization Act Title I, II, III
TLV - Threshold Limit Value

This MSDS has been formatted to be consistent with ANSI Standard Z400.1-1993

KIK Gainesville CUSTOM PRODUCTS
2030 Old Candler Road
Gainesville, GA 30507
Phone: 770-534-0300
Fax: 770-531-6180

DAVINES

NO-GAS HAIR SPRAY 55%VOC

Section I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS FIRST PREPARATION DATE: June 25, 2013
REVISION DATE: January 8, 2014
SUPERSEDES:
FORMULA: # **B-9078**
PREPARED AND REVISED BY: Chi le
GENERIC/CHEMICAL NAME: Non Aerosol Hair Spray
PRODUCT TYPE/CHEMICAL FAMILY: NA
PRODUCT CODE: Gainesville
SYNONYMS: None

CONTACT ADDRESS: **KIK Custom Products Gainesville, Inc., 2030 Old Candler Road, Gainesville, GA. 30507**

EMERGENCY PHONE NUMBERS:
KIK Custom product Gainesville : (770) 534-0300 Monday - Friday, 8:00 am – 5:00 pm EDT
Chem-tel: (800) 255-3924 – **24-Hours** Contract number: #MIS0002907

Section II - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No	Percent	Hazardous
Ethanol	64-17-5	54%	Yes

Section III - HAZARDS INDENTIFICATION

POTENTIAL HEALTH EFFECTS
EYE CONTACT: Direct contact of product with eyes may cause irritation, and may result in irreversible damage.
SKIN CONTACT: Not Known
INHALATION: Not Known
INGESTION: If ingested, may cause nausea and vomiting. If in aerosol form, ingestion is not likely.

Section IV - FIRST AID

EYE CONTACT: If irritation or redness due to vapors develops, move victim away from exposure and into fresh air. If material gets into the eyes, flush eyes immediately with clean water for at least 15 minutes. If available, use eye-cups or eye wash fountain. If symptoms persist, get medical attention.

SKIN CONTACT: Clean affected areas with mild soap and water. Remove contaminated clothing, including shoes, and launder before reuse or discard.

symptoms persist, get medical attention. If victim is not breathing immediately begin artificial respiration. Get medical attention.

INGESTION: Product is not likely to be ingested. If this occurs, treat systematically. Never give fluids or induce vomiting if the victim is unconscious or having convulsions

Section V - FIRE FIGHTING MEASURES

FLASH POINT: Concentrate 36°F (EPA Method 1010)
AUTOIGNITION TEMPERATURE: NA
FLAMMABILITY LIMITS IN AIR (% V): LEL=1.8%; UEL=9.5%
EXTINGUISHING MEDIA: Carbon Dioxide, Foam, Dry Chemical, Water
SPECIAL FIRE FIGHTING PROCEDURES: Keep containers cool by spraying them with water until the fire has been extinguished.
UNUSUAL FIRE & EXPLOSION HAZARDS: Containers may rupture and release flammable liquids if exposed to the heat of fire.

Section VI - ACCIDENTIAL RELEASE MEASURES

SPILL ON LAND (LARGE SPILL): Eliminate sources of ignition. Prevent additional discharge of material, if possible to do so without risk. Minimize breathing of vapors. Minimize skin contact. Ventilate confined spaces. For small spills implement the following cleanup procedures: Prevent material from entering sewers, watercourses, or low areas. Contain spilled material with sand or earth. Do not use combustible materials such as sawdust. Observe precautions for volatile, combustible vapors from absorbed material. For large spills implement the preceding cleanup procedures and, if in public area, keep public away and advise authorities. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

SPILL ON WATER (LARGE SPILL): Eliminate sources of ignition. Warn occupants and shipping in surrounding and downwind areas of fire and explosion hazard and request all to stay clear. Remove from surface by skimming or scooping up floating material. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

SMALL SPILLS: Leaking containers should be placed in open containers, outdoors, away from any source of ignition, until all pressure has been released.

Section VII - STORAGE AND HANDLING

STORAGE TEMPERATURE: Ambient
STORAGE/TRANSPORT PRESSURE: 179 psig @ 131°F Max
LOADING/UNLOADING TEMPERATURE: Ambient

STORAGE AND HANDLING: Keep container closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. DO NOT handle or store near an open flame, heat, or other source of ignition. DO NOT pressurize, cut, heat, or weld empty containers. DO NOT reuse containers.

Section VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION: None Required
VENTILATION: Normal Ventilation adequate for recommended uses.
PROTECTIVE CLOTHING: Not necessary except as a good industrial practice.
EYE PROTECTION: Not necessary except as a good industrial practice.
OTHER PRECAUTIONS: Avoid excessive inhalation. Read and follow all label directions and cautions. Use only as directed

Section IX - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: clear, light yellow liquid
STATE: non aerosol
ODOR: Characteristic

SPECIFIC GRAVITY: 0.82- 0.85
VISCOSITY: NA
EVAPORATION RATE, >1
VAPOR PRESSURE mm Hg @ 20°C: NA
BOILING POINT: Unknown
VAPOR DENSITY (Air=1): >1
SOLUBILITY IN WATER: Soluble

Section X - REACTIVITY

STABILITY: Stable under normal conditions of storage and handling
CONDITIONS TO AVOID INSTABILITY: Do not store containers in direct sunlight or where conditions will heat them above 120°F.
HAZARDOUS POLYMERIZATON: Will not occur
CONDITIONS TO AVOID HAZARDOUS POLYMERIZATION: Not Applicable
MATERIALS AND CONDITIONS TO AVOID INCOMPATIBILITY: None Known

Section XI - TOXICOLOGICAL INFORMATION

No specific toxicological data is available for this product. Please refer to Section III for available information on potential health effects.

Section XII - ECOLOGICAL INFORMATION

No specific ecological data are available for this product. Please refer to Section VI for information regarding accidental releases and Section XV for regulatory reporting information

Section XIII - DISPOSAL CONSIDERATIONS

All recovered material should be packaged, labeled, transported, disposed and reclaimed in conformance with local, county, state, and federal regulations. May be disposed of by controlled incineration. Do not contaminate any lakes, streams, ponds, or underground water supplies.
Empty containers may be disposed of as normal refuse. Please recycle whenever possible.

Section XIV - TRANSPORT INFORMATION

U. S. DOT PROPER SHIPPING NAME:	Consumer Commodity
U. S. DOT HAZARD CLASS:	Limited Quantity
U. S. DOT LABELS REQUIRED:	None
U. S. DOT PLACARDS REQUIRED:	None
EMERGENCY RESPONSE GUIDE NUMBER:	NAERG# 171

IATA PROPER SHIPPING NAME:	Consumer Commodity Limited Quantity Ethyl Alcohol Solution, UN 1170 PG II (Export)
IATA HAZARD CLASS:	3
IATA LABELS REQUIRED:	Consumer Commodity Air Ldt qty marking (Domestic) Flammable Liquid
BILL OF LADING DESCRIPTION:	Consumer Commodity Ldt Qty, 3, UN1170 (Domestic) Ethanol Solution, 3, UN1170, PG II (Export)
UN/NA CODE:	NA (Domestic) UN1170 (Export)
PACKING INSTRUCTIONS:	305 (Domestic) Y305 (Export) Authorization: Limited Quantity
EMERGENCY RESPONSE GUIDE NUMBER:	126
EMERGENCY RESPONSE NUMBERS:	CHEM-TEL: 1-813-979-0626 US & Canada Only: 1-800-255-3924 International: 00-1-813979-0626

IMDG PROPER SHIPPING NAME:	Ethyl Alcohol Solution
IMDG HAZARD CLASS:	**3**
IMDG LABELS REQUIRED:	**Flammable Liquids**
IMDG SECONDARY LABELS REQUIRED:	**NA**
IMDG PLACARDS REQUIRED:	None
BILL OF LADING DESCRIPTION:	**Ethyl Alcohol Solution**, 3, UN1170, PGII
MARINE POLLUTANT:	No
EMERGENCY RESPONSE GUIDE NUMBER:	126
EMS NUMBER:	F-E, S-D
MFAG NUMBER:	144
EMERGENCY RESPONSE NUMBERS:	CHEM-TEL: 1-813-979-0626 US & Canada Only: 1-800-255-3924 International: 00-1-813979-0626
IMDG PAGE NUMBER:	47, Volume 2
UN/NA CODE:	UN1170

Section XV - REGULATORY INFORMATION

TSCA: Components of this product are listed on the Toxic Substances Control Act (TSCA) Inventory
SARA TITLE III, Section 311-312: Acute and Fire Hazard (Ethanol)
SARA TITLE III, Section 313: None noted
CALIFORNIA PROPOSITION 65: Not Regulated

Section XVI - OTHER INFORMATION

HAZARD RATING SYSTEMS: This information is for people trained in: National Paint & Coatings Association's (NPCA) Hazardous Materials Identification System (HMIS) and/or National Fire Protection Association (NFPA 704) Identification of the Fire Hazards of Materials.

	NPCA-HMIS	**NFPA 704**	**KEY:NPCA-HMIS/NFPA 704**
HEALTH	2	NA	4=Severe/Extreme
FLAMMABILITY	4	NA	3=Serious/High
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NOTE: The information presented herein for this product or its components has been compiled from different supplier sources considered to be dependable and is accurate to the best of our knowledge as to the proper use and handling of this product under normal conditions. However, no representation, warranty, or guarantee is made as to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information. Any use of this product which is not in conformance with this MSDS or which involves using the product in combination with any other product or any process is the responsibility of the user. EXPLANATION OF ABBREVIATIONS:
CAS# - Chemical Abstract System No.
DOT -Department Of Transportation
IMDG - International Maritime Dangerous Goods code
NA - Not Applicable
ND - Not Determined
NFPA - National Fire Protection Association
OSHA - Occupational Safety and Health Administration
PEL - Permissible Exposure Limits
SARA - Superfund Amendments and Reauthorization Act Title I, II, III
TLV - Threshold Limit Value

This MSDS has been formatted to be consistent with ANSI Standard Z400.1-1993

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **91051**
Product name **HAIR REFRESHER**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.
Aerosol, category 1 — Extremely flammable aerosol.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H222 Extremely flammable aerosol.

Precautionary statements:
Prevention:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
Response:
--

SECTION 2. Hazards identification. ... / >>

Storage:
P410+P412 Protect from sunlight. Do no expose to temperatures exceeding 50°C / 122°F.
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
BUTANE		
CAS. 106-97-8	40 - 60	Flammable gas, category 1 H220
ISOBUTANO		
CAS. 75-28-5	9 - 24	Flammable gas, category 1 H220
PROPANE		
CAS. 74-98-6	9 - 24	Flammable gas, category 1 H220
ETHANOL		
CAS. 64-17-5	1 - 5	Flammable liquid, category 2 H225

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the fire. Do not breathe combustion products.

SECTION 5. Firefighting measures. ... / >>

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

6.2. Environmental precautions.

Do not disperse in the environment.

6.3. Methods and material for containment and cleaning up.

Use inert absorbent material to soak up leaked product. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

7.2. Conditions for safe storage, including any incompatibilities.

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C/122°F, away from any combustion sources.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

BUTANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			2377	1000
CAL/OSHA	USA	1.9	800		
NIOSH	USA	1900	800		

ISOBUTANO

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
NIOSH	USA	1900	800		

SECTION 8. Exposure controls/personal protection. ... / >>

PROPANE					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-		1000		
OSHA	USA	1800	1000		
CAL/OSHA	USA	1800	1000		
NIOSH	USA	1800	1000		

ETHANOL					
Threshold Limit Value.					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
HAND PROTECTION
None required.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a NIOSH certified combined filter should be worn (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134).
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	Not available.
Colour	Not available.
Odour	Not available.
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not applicable.
Boiling range.	Not available.
Flash point.	Not applicable.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	Not available.
Solubility	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.

SECTION 9. Physical and chemical properties. ... / >>

Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
Avoid overheating.

10.5. Incompatible materials.
Strong reducing or oxidising agents, strong acids or alkalis, hot material.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

ETHANOL

LD50 (Oral).	> 5000 mg/kg Rat
LC50 (Inhalation).	120 mg/l/4h Pimephales promelas

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1
67-63-0 PROPAN-2-OL
IARC:3

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

BUTANE

Solubility in water.	mg/l 0.1 - 100
Rapidly biodegradable.	

PROPANE

Solubility in water.	mg/l 0.1 - 100
Rapidly biodegradable.	

SECTION 12. Ecological information. ... / >>

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

12.3. Bioaccumulative potential.

BUTANE
Partition coefficient: n-octanol/water. 1.09

PROPANE
Partition coefficient: n-octanol/water. 1.09

ETHANOL
Partition coefficient: n-octanol/water. -0.35

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1950

14.2. UN proper shipping name.

ADR / RID: AEROSOLS, FLAMMABLE
IMDG: AEROSOLS
IATA: AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es).

ADR / RID: Class: 2 Label: 2.1

IMDG: Class: 2 Label: 2.1

IATA: Class: 2 Label: 2.1

14.4. Packing group.

ADR / RID, IMDG, IATA: -

SECTION 14. Transport information. ... / >>

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: -- Special Provision: -	Limited Quantities: 1 L	Tunnel restriction code: (D)
IMDG:	EMS: F-D, S-U	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 150 Kg	Packaging instructions: 203
	Pass.:	Maximum quantity: 75 Kg	Packaging instructions: 203
	Special Instructions:	A145, A167, A802	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

CAA 112 (r) RMP TQ:

106-97-8	BUTANE (Alkanes)
74-98-6	PROPANE (Alkanes, Alkanes (aliphatic hrydrocarbon alkanes, C1-C4))
75-28-5	

State Regulations.

Massachussetts:

106-97-8	BUTANE (Alkanes)
74-98-6	PROPANE (Alkanes, Alkanes (aliphatic hrydrocarbon alkanes, C1-C4))
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
75-28-5	

Minnesota:

106-97-8	BUTANE (Alkanes)
74-98-6	PROPANE (Alkanes, Alkanes (aliphatic hrydrocarbon alkanes, C1-C4))
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

New Jersey:

106-97-8	BUTANE (Alkanes)
74-98-6	PROPANE (Alkanes, Alkanes (aliphatic hrydrocarbon alkanes, C1-C4))
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
75-28-5	

New York:

No component(s) listed.

Pennsylvania:

106-97-8	BUTANE (Alkanes)
74-98-6	PROPANE (Alkanes, Alkanes (aliphatic hrydrocarbon alkanes, C1-C4))
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
75-28-5	

California:

106-97-8	BUTANE (Alkanes)
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

Proposition 65:

This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Candadian WHMIS.

Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Gas 1	Flammable gas, category 1
Aerosol 1	Aerosol, category 1
Flam. Liq. 2	Flammable liquid, category 2
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.

SECTION 16. Other information. ... / >>

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

SECTION 16. Other information. ... / >>

This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
02 / 03 / 05 / 06 / 07 / 08 / 09 / 10 / 16.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**75108**
Product name	**DEHC NOUNOU HAIR MASK 250 ML**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**professional use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

SECTION 2. Hazards identification. ... / >>

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water / . . .
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor / . . .
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3	Harmful to aquatic life with long lasting effects.

Hazard statements:

H412	Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:

P273	Avoid release to the environment.

Response:

--

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS. 68607-24-9	1 - 3	Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
cetrimonium chloride		
CAS. 112-02-7	1 - 2.5	Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=10, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
Phenol, 2-(2H-benzotriazol-2-yl)-6-dodecyl-4-methyl-, branched and linear		
CAS. 125304-04-3	1 - 5	Hazardous to the aquatic environment, chronic toxicity, category 2 H411
dodecan-1-ol		
CAS. 112-53-8	0 - 0.5	Eye irritation, category 2 H319, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

SECTION 3. Composition/information on ingredients. ... / >>

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
CAS. *10191-41-0* 0.1 - 0.5 Skin sensitization, category 1 H317

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	LUCID CREAM
Colour	beige
Odour	STD. REF.

SECTION 9. Physical and chemical properties. ... / >>

Odour threshold.		Not available.	
pH.		3,50 - 4,50	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9850 - 0,9950	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		50.000,0000 - 100.000,0000	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.
None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas.
Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

SECTION 11. Toxicological information. ... / >>

Docosanol, ethoxylated, 20 mol EO (average molar ratio)
LD50 (Oral). > 2000 mg/kg

docosan-1-ol
LD50 (Oral). > 2000 mg/kg rat

Propane-1,3-diol
LD50 (Oral). 15000 mg/kg rat
LD50 (Dermal). > 20000 mg/kg rabbit
LC50 (Inhalation). > 5 mg/l/4h rat

hexadecan-1-ol
LD50 (Oral). > 2000 mg/kg rat

ALCOHOLS, c16-18
LD50 (Oral). > 2000 mg/kg rat

Glycerides, C14-18 mono- and di-
LD50 (Oral). > 5000 mg/kg

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
LD50 (Oral). > 4000 mg/kg rat
LD50 (Dermal). 1480 mg/kg rabbit

Phenol, 2-(2H-benzotriazol-2-yl)-6-dodecyl-4-methyl-, branched and linear
LD50 (Oral). > 2000 mg/kg rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
LD50 (Oral). 3190 mg/kg rat
LD50 (Dermal). 3342 mg/kg coniglio
LC50 (Inhalation). > 6 mg/l/1h rat

cetrimonium chloride
LD50 (Oral). 2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal). 1600 mg/kg rabbit male/female

dodecan-1-ol
LD50 (Oral). > 2000 mg/kg rat
LD50 (Dermal). > 8000 mg/kg
LC50 (Inhalation). > 71 mg/l/1h rat

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

docosan-1-ol
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio

Propane-1,3-diol
LC50 - for Fish. > 9720 mg/l/96h Fathead minnows (Phoxinus promelas)
EC50 - for Crustacea. 7417 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants. 1600 mg/l/72h Algae

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
EC50 - for Crustacea. > 100 mg/l/48h Daphnia magna

Phenol, 2-(2H-benzotriazol-2-yl)-6-dodecyl-4-methyl-, branched and linear
LC50 - for Fish. > 100 mg/l/96h Brachydanio rerio
EC50 - for Algae / Aquatic Plants. > 5 mg/l/72h Scenedesmus sp,

SECTION 12. Ecological information. ... / >>

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides	
LC50 - for Fish.	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea.	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants.	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants.	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish.	3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea.	128 mg/l Daphnia magna (21 d)

cetrimonium chloride	
LC50 - for Fish.	0.71 mg/l/96h
EC50 - for Crustacea.	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants.	0.08 mg/l/72h
Chronic NOEC for Crustacea.	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants.	0.08 mg/l/72h

dodecan-1-ol	
LC50 - for Fish.	1.01 mg/l/96h Pimephales promelas
EC50 - for Crustacea.	0.765 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants.	0.66 mg/l/72h Desmodesmus subspicatus (growth rate)

12.2. Persistence and degradability.

Docosanol, ethoxylated, 20 mol EO (average molar ratio)
Rapidly biodegradable.

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly biodegradable.

cetrimonium chloride	
Solubility in water.	240 mg/l

dodecan-1-ol	
Solubility in water.	1 mg/l

12.3. Bioaccumulative potential.

Phenol, 2-(2H-benzotriazol-2-yl)-6-dodecyl-4-methyl-, branched and linear	
Partition coefficient: n-octanol/water.	8.9 Log KOW

cetrimonium chloride	
Partition coefficient: n-octanol/water.	3.08 Log Kow

dodecan-1-ol	
Partition coefficient: n-octanol/water.	5.36 log Pow

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

100-51-6	BENZYL ALCOHOL
56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

Minnesota:

100-51-6	BENZYL ALCOHOL
56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

New Jersey:

56-81-5	Glycerol
138-86-3	DIPENTENE
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

100-51-6	BENZYL ALCOHOL
56-81-5	Glycerol
100-51-6	BENZYL ALCOHOL
67-63-0	PROPAN-2-OL

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4

SECTION 16. Other information. ... / >>

STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances

SECTION 16. Other information. ... / >>

- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **90134**
Product name **OI ALLURING MIST**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **professional use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2	Highly flammable liquid and vapour.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.

SECTION 2. Hazards identification. ... / >>

P241 Use explosion-proof electrical equipment (ventilating, lighting, etc ...).
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves / eye protection / face protection.

Response:
P302+P352 IF ON SKIN: wash with plenty of water / . . .
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P363 Wash contaminated clothing before reuse.
P370+P378 In case of fire: use . . . to extinguish.

Storage:
P403+P235 Store in a well-ventilated place. Keep cool.

Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.
Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
Response:
--
Storage:
--
Disposal:
P501 Dispose of contents and / or the container in accordance with the applicable local and national regulations.
--

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %***	**Classification:**
ETHANOL		
CAS. 64-17-5	60 - 100	Flammable liquid, category 2 H225
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran		
CAS. 1222-05-5	0.25 - 0.5	Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
Eucalyptus globulus oil		
CAS. 8000-48-4	0.1 - 0.5	Flammable liquid, category 3 H226, Aspiration hazard, category 1 H304, Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411
[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one		
CAS. 32388-55-9	0 - 0.25	Skin sensitization, category 1B H317, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one		
CAS. 1506-02-1	0 - 0.25	Acute toxicity, category 4 H302, Hazardous to the aquatic environment, acute toxicity, category 1 H400 M=1, Hazardous to the aquatic environment, chronic toxicity, category 1 H410

SECTION 3. Composition/information on ingredients. ... / >>

citronellol
CAS. *106-22-9* 0.1 - 0.5 Eye irritation, category 2 H319, Skin irritation, category 2 H315, Skin sensitization, category 1 H317, Hazardous to the aquatic environment, chronic toxicity, category 2 H411

* There is a batch to batch variation.

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed.
For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

SECTION 6. Accidental release measures. ... / >>

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.
Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

SECTION 8. Exposure controls/personal protection. ... / >>

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		liquid		
Colour		yellow		
Odour		Ref. Std.		
Odour threshold.		Not available.		
pH.		Not available.		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		Not available.		
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

SECTION 11. Toxicological information. ... / >>

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

ETHANOL
LD50 (Oral). > 5000 mg/kg Rat
LC50 (Inhalation). 120 mg/l/4h Pimephales promelas

1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one
LD50 (Oral). 920 mg/kg rat
LD50 (Dermal). 7940 mg/kg rat (female)

citronellol
LD50 (Oral). 3450 mg/kg rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LD50 (Oral). > 4640 mg/kg rat
LD50 (Dermal). > 10000 mg/kg Rat

Carcinogenicity Assessment:
64-17-5 ETHANOL
ACGIH:: A3
IARC:1

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.

1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one
EC50 - for Algae / Aquatic Plants. 0.835 mg/l/72h

citronellol
EC50 - for Algae / Aquatic Plants. 2.4 mg/l/72h
Chronic NOEC for Fish. 4.6 mg/l 96h
Chronic NOEC for Crustacea. 3.1 mg/l Daphnia sp, 48h

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran
LC50 - for Fish. 0.452 mg/l/96h
EC50 - for Crustacea. 0.47 mg/l/48h
EC50 - for Algae / Aquatic Plants. > 0.854 mg/l/72h Pseudokirchnerella subcapitata

[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one
LC50 - for Fish. 2.3 mg/l/96h
EC50 - for Crustacea. 0.86 mg/l/48h

12.2. Persistence and degradability.

ETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one
Solubility in water. 1.25 mg/l

[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)ethan-1-one
Solubility in water. 6 mg/l a 23°C
NOT rapidly biodegradable.

SECTION 12. Ecological information. ... / >>

12.3. Bioaccumulative potential.

ETHANOL
Partition coefficient: n-octanol/water. -0.35

citronellol
Partition coefficient: n-octanol/water. 3.41

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to dangerous goods transport regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1170

14.2. UN proper shipping name.

ADR / RID: ETHANOL (ETHYL ALCOHOL) or ETHANOL
IMDG: ETHANOL (ETHYL ALCOHOL) or ETHANOL
IATA: ETHANOL (ETHYL ALCOHOL) or ETHANOL

14.3. Transport hazard class(es).

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33 Special Provision: -	Limited Quantities: 1 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-D	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3, A58, A180	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:

SECTION 15. Regulatory information. ... / >>

64-17-5 ETHANOL
100-51-6 BENZYL ALCOHOL
101-84-8 diphenyl ether

Minnesota:
64-17-5 ETHANOL
100-51-6 BENZYL ALCOHOL
101-84-8 diphenyl ether

New Jersey:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
64-17-5 ETHANOL
101-84-8 diphenyl ether

New York:
No component(s) listed.

Pennsylvania:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)
64-17-5 ETHANOL
100-51-6 BENZYL ALCOHOL
101-84-8 diphenyl ether
119-36-8 methyl salicylate

California:
64-17-5 ETHANOL
101-84-8 diphenyl ether

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2 Flammable liquid, category 2
Flam. Liq. 3 Flammable liquid, category 3
Asp. Tox. 1 Aspiration hazard, category 1
Eye Irrit. 2 Eye irritation, category 2
Skin Irrit. 2 Skin irritation, category 2
Skin Sens. 1 Skin sensitization, category 1
Skin Sens. 1B Skin sensitization, category 1B
Aquatic Acute 1 Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1 Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2 Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3 Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4 Hazardous to the aquatic environment, chronic toxicity, category 4
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

SECTION 16. Other information. ... / >>

H413 May cause long lasting harmful effects to aquatic life.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

SECTION 16. Other information. ... / >>

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **76015/3**
Product name **OI/CREMA MANI SF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
decamethylcyclopentasiloxane		
CAS. 541-02-6	1 - 5	

Note: Upper limit is not included into the range.
The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water.
Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures. ... / >>

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.
Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

TLV-ACGIH ACGIH 2014

decamethylcyclopentasiloxane

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	0	10	0	0

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		Not available.	
Colour		Not available.	
Odour		Not available.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		0,9960 - 1,0060	Kg/l
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		Not available.	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.

decamethylcyclopentasiloxane

LC50 - for Fish.	> 16 mg/l/96h
EC50 - for Crustacea.	> 2.9 mg/l/48h
EC10 for Algae / Aquatic Plants.	> 12 mg/l/72h 96 h
Chronic NOEC for Fish.	> 14 mg/l 90 d
Chronic NOEC for Crustacea.	> 15 mg/l 21 d

12.2. Persistence and degradability.

decamethylcyclopentasiloxane

Solubility in water.	< 0.1 mg/l

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
122-99-6 2-PHENOXYETHANOL (Glycol ethers)

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
100-51-6 ALCOOL BENZILICO/DEKABEN BA
56-81-5 GLICERINA FU 30 BE
7681-57-4 SODIUM BISULPHITE
101-84-8 diphenyl ether

SECTION 15. Regulatory information. ... / >>

Minnesota:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
7681-57-4	SODIUM BISULPHITE
101-84-8	diphenyl ether

New Jersey:

56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
101-84-8	diphenyl ether

New York:
No component(s) listed.

Pennsylvania:

100-51-6	ALCOOL BENZILICO/DEKABEN BA
56-81-5	GLICERINA FU 30 BE
122-99-6	2-PHENOXYETHANOL (Glycol ethers)
7681-57-4	SODIUM BISULPHITE
101-84-8	diphenyl ether
119-36-8	methyl salicylate

California:

7681-57-4	SODIUM BISULPHITE
101-84-8	diphenyl ether

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
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- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization

SECTION 16. Other information. ... / >>

- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

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- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
09 / 11.

1. Identification

1.1. Product identifier

Code: **77002**
Product name **THE PURITY CIRCLE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Skin corrosion, category 1C	Causes severe skin burns and eye damage.
Serious eye damage, category 1	Causes serious eye damage.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.

2. Hazards identification ... / >>

P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / clothing and eye / face protection.
Response:	
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P314	Get medical advice / attention if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P363	Wash contaminated clothing before reuse.
Storage:	
P405	Store locked up.
Disposal:	
P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS 68607-24-9	3 ≤ x < 5	**Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC 271-756-9		
INDEX		
Betaines, coco alkyldimethyl		
CAS 66455-29-6	3 ≤ x < 5	**Skin corrosion, category 1B H314**
EC		
INDEX		
cetrimonium chloride		
CAS 112-02-7	1 ≤ x < 2	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC 203-928-6		
INDEX		
3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol		
CAS 10191-41-0	0.1 ≤ x < 1	**Skin sensitization, category 1 H317**
EC 233-466-0		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

4. First-aid measures ... / >>

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may

7. Handling and storage ... / >>

occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		LUCID CREAM		
Colour		dark grey		
Odour		STD. REF.		
Odour threshold		Not available		
pH		4,00 - 4,70		
Melting point / freezing point		Not available		
Initial boiling point		Not available		
Boiling range		Not available		
Flash point	>	93 °C		(199,4 °F)
Evaporation rate		Not available		
Flammability (solid, gas)		Not available		
Lower inflammability limit		Not available		
Upper inflammability limit		Not available		

9. Physical and chemical properties ... / >>

Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	0,0000 - 0,0000
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	35.000,0000 - 70.000,0000
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

11. Toxicological information ... / >>

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

LD50 (Oral)	> 4000 mg/kg rat
LD50 (Dermal)	1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral)	3190 mg/kg rat
LD50 (Dermal)	3342 mg/kg coniglio

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

SKIN CORROSION / IRRITATION

Corrosive for the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:

67-63-0	PROPAN-2-OL
	IARC:3
5989-27-5	(R)-p-mentha-1,8-diene
	IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

May cause damage to organs

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

12. Ecological information ... / >>

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish	3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea	128 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish	0.71 mg/l/96h
EC50 - for Crustacea	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.08 mg/l/72h
Chronic NOEC for Crustacea	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

12.2. Persistence and degradability

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly degradable

cetrimonium chloride

Solubility in water	240 mg/l

12.3. Bioaccumulative potential

cetrimonium chloride

Partition coefficient: n-octanol/water	3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 3265

14.2. UN proper shipping name

ADR / RID: CORROSIVE LIQUID ACIDIC, ORGANIC, N.O.S. (betaines, coco alkyldimethyl)
IMDG: CORROSIVE LIQUID ACIDIC, ORGANIC, N.O.S. (betaines, coco alkyldimethyl, quaternary ammonium compound,C20-22,alkyltrimethyl, chlorides)
IATA: CORROSIVE LIQUID ACIDIC, ORGANIC, N.O.S. (betaines, coco alkyldimethyl)

14.3. Transport hazard class(es)

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 80 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-B	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	Special Instructions:	A3, A803	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

15. Regulatory information ... / >>

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL
100-51-6 BENZYL ALCOHOL

Minnesota:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL
100-51-6 BENZYL ALCOHOL

New Jersey:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL
100-51-6 BENZYL ALCOHOL

California:
67-63-0 PROPAN-2-OL

15. Regulatory information ... / >>

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code

16. Other information ... / >>

- REL: Recommended exposure limit- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **77006**
Product name **THE QUICK FIX CIRCLE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

2. Hazards identification ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P314	Get medical advice / attention if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice / attention.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS 68607-24-9	3 ≤ x < 5	**Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC 271-756-9		
INDEX		
docosyltrimethylammonium methyl sulphate		
CAS 81646-13-1	1 ≤ x < 2	**Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC 279-791-1		
INDEX		
cetrimonium chloride		
CAS 112-02-7	1 ≤ x < 2	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC 203-928-6		
INDEX		
Quaternium 87		
CAS 92201-88-2	1 ≤ x < 2	**Skin irritation, category 2 H315**
EC 296-019-9		
INDEX		
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran		
CAS 1222-05-5	0.25 ≤ x < 1	
EC 214-946-9		
INDEX 603-212-00-7		
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
CAS 54464-57-2	0.1 ≤ x < 1	**Skin irritation, category 2 H315, Skin sensitization, category 1 H317**
EC 259-174-3		
INDEX		
(R)-p-mentha-1,8-diene		
CAS 5989-27-5	0.1 ≤ x < 0.25	**Flammable liquid, category 3 H226, Skin irritation, category 2 H315, Skin sensitization, category 1 H317**
EC 227-813-5		

3. Composition/information on ingredients ... / >>

INDEX *601-029-00-7*
3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
CAS *10191-41-0* 0.1 ≤ x < 1 **Skin sensitization, category 1 H317**
EC *233-466-0*
INDEX

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

6. Accidental release measures ... / >>

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		LUCID CREAM	
Colour		ORANGE-RED	
Odour		STD. REF.	
Odour threshold		Not available	
pH		4,00 - 4,50	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		0,9943 - 1,0043	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		50.000,0000 - 90.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11. Toxicological information ... / >>

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

LD50 (Oral)	> 4000 mg/kg rat
LD50 (Dermal)	1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral)	3190 mg/kg rat
LD50 (Dermal)	3342 mg/kg coniglio

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

(R)-p-mentha-1,8-diene

LD50 (Oral)	> 2000 mg/kg rat
LD50 (Dermal)	> 5000 mg/kg rabbit

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

docosyltrimethylammonium methyl sulphate

LD50 (Oral)	3190 mg/kg rat

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

LD50 (Oral)	> 4640 mg/kg rat
LD50 (Dermal)	> 10000 mg/kg Rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

11. Toxicological information ... / >>

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

May cause damage to organs

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and highly toxic for aquatic organisms.
This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish	3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea	128 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish	0.71 mg/l/96h
EC50 - for Crustacea	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.08 mg/l/72h
Chronic NOEC for Crustacea	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

(R)-p-mentha-1,8-diene

LC50 - for Fish	0.72 mg/l/96h Pimephales promelas

12. Ecological information ... / >>

EC50 - for Crustacea	0.36 mg/l/48h Daphnia magna
Chronic NOEC for Fish	0.37 mg/l

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1.3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1.38 mg/l/48h Daphnia sp,
EC50 - for Algae / Aquatic Plants	> 2.6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0.3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0.448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2.6 mg/l 72h

docosyltrimethylammonium methyl sulphate

LC50 - for Fish	0.5 mg/l/96h
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish	0.24 mg/l

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

LC50 - for Fish	0.452 mg/l/96h
EC50 - for Crustacea	0.47 mg/l/48h
EC50 - for Algae / Aquatic Plants	> 0.854 mg/l/72h

12.2. Persistence and degradability

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly degradable

cetrimonium chloride

Solubility in water	240 mg/l

(R)-p-mentha-1,8-diene

Solubility in water	12.3 mg/l

Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2.68 mg/l

Rapidly degradable

docosyltrimethylammonium methyl sulphate

Solubility in water	7 mg/l

12.3. Bioaccumulative potential

cetrimonium chloride

Partition coefficient: n-octanol/water	3.08 Log Kow

12.4. Mobility in soil

Information not available

12. Ecological information ... / >>

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; docosyltrimethylammonium methyl sulphate)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; docosyltrimethylammonium methyl sulphate)
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; docosyltrimethylammonium methyl sulphate)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9

IMDG: Class: 9 Label: 9

IATA: Class: 9 Label: 9

14.4. Packing group

ADR / RID, IMDG, IATA: III

14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous	
IMDG:	Marine Pollutant	
IATA:	Environmentally Hazardous	

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90	Limited Quantities: 5 L	Tunnel restriction code: (-)
	Special Provision: -		
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Pass.:	Maximum quantity: 450 L	Packaging instructions: 964
	Special Instructions:	A97, A158, A197	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

15. Regulatory information ... / >>

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL
100-51-6 BENZYL ALCOHOL

Minnesota:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL
100-51-6 BENZYL ALCOHOL

New Jersey:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL
100-51-6 BENZYL ALCOHOL

California:
67-63-0 PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H226	Flammable liquid and vapour.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.

16. Other information ... / >>

H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

1. Identification

1.1. Product identifier

Code: **77008**
Product name **THE RENAISSANCE CIRCLE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

2. Hazards identification ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P314	Get medical advice / attention if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice / attention.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS 68607-24-9	3 ≤ x < 5	**Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC 271-756-9		
INDEX		
2,6,10-Trimethyldodecane		
CAS 3891-98-3	2 ≤ x < 5	**Aspiration hazard, category 1 H304**
EC 622-542-2		
INDEX		
docosyltrimethylammonium methyl sulphate		
CAS 81646-13-1	1 ≤ x < 2	**Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC 279-791-1		
INDEX		
cetrimonium chloride		
CAS 112-02-7	1 ≤ x < 2	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC 203-928-6		
INDEX		
Quaternium 87		
CAS 92201-88-2	1 ≤ x < 2	**Skin irritation, category 2 H315**
EC 296-019-9		
INDEX		
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
CAS 54464-57-2	0.1 ≤ x < 1	**Skin irritation, category 2 H315, Skin sensitization, category 1 H317**
EC 259-174-3		
INDEX		

3. Composition/information on ingredients ... / >>

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol
CAS *10191-41-0* 0.1 ≤ x < 1 **Skin sensitization, category 1 H317**
EC *233-466-0*
INDEX

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6. Accidental release measures ... / >>

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		LUCID CREAM	
Colour		OCHER	
Odour		STD. REF.	
Odour threshold		Not available	
pH		4,00 - 4,80	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		0,9927 - 1,0027	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		45.000,0000 - 85.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11. Toxicological information ... / >>

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

LD50 (Oral)	> 4000 mg/kg rat
LD50 (Dermal)	1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral)	3190 mg/kg rat
LD50 (Dermal)	3342 mg/kg coniglio

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

docosyltrimethylammonium methyl sulphate

LD50 (Oral)	3190 mg/kg rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
67-63-0

11. Toxicological information ... / >>

PROPAN-2-OL
IARC:3
5989-27-5 (R)-p-mentha-1,8-diene
IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

May cause damage to organs

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and highly toxic for aquatic organisms.
This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish	3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea	128 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish	0.71 mg/l/96h
EC50 - for Crustacea	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.08 mg/l/72h
Chronic NOEC for Crustacea	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1.3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1.38 mg/l/48h Daphnia sp,
EC50 - for Algae / Aquatic Plants	> 2.6 mg/l/72h Growth rate Desmodesmus subspicatus

12. Ecological information ... / >>

Chronic NOEC for Fish	0.3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0.448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2.6 mg/l 72h

docosyltrimethylammonium methyl sulphate

LC50 - for Fish	0.5 mg/l/96h
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish	0.24 mg/l

12.2. Persistence and degradability

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly degradable

cetrimonium chloride

Solubility in water	240 mg/l

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2.68 mg/l

Rapidly degradable

docosyltrimethylammonium methyl sulphate

Solubility in water	7 mg/l

12.3. Bioaccumulative potential

cetrimonium chloride

Partition coefficient: n-octanol/water	3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14. Transport information ... / >>

14.1. UN number

ADR / RID, IMDG, IATA: 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; docosyltrimethylammonium methyl sulphate)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; docosyltrimethylammonium methyl sulphate)
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; docosyltrimethylammonium methyl sulphate)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9

IMDG: Class: 9 Label: 9

IATA: Class: 9 Label: 9

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: Environmentally Hazardous

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (-)
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Pass.:	Maximum quantity: 450 L	Packaging instructions: 964
	Special Instructions:	A97, A158, A197	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL
100-51-6	BENZYL ALCOHOL

Minnesota:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL
100-51-6	BENZYL ALCOHOL

New Jersey:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL

15. Regulatory information ... / >>

New York:
No component(s) listed.

Pennsylvania:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL
100-51-6	BENZYL ALCOHOL

California:

67-63-0	PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)

16. Other information ... / >>

- GHS: Globally Harmonized System of classification and labeling of chemicals- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

KIK CUSTOM PRODUCTS

SAFETY DATA SHEET

KIK – B-9404C

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.0 SDS Revision Date: 9/15/2015

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	**More Inside Dry Texturizer**
1.2	Chemical Name:	Aerosol Hair Spray
1.3	Synonyms:	Davines – Dry Texturizer 55%VOC – B-9404C. Code 87061
1.4	Trade Names:	More Inside Dry Texturizer
1.5	Product Uses/ Restrictions	Professional and Cosmetic Use
1.6	Distributor's Name:	KIK Custom Products
1.7	Distributor's Address:	2030 Old Candler Road, Gainesville, GA 30507 USA
1.8	Emergency Phone:	**CHEMTEL: +1 (813) 248-0585 / +1 (800) 255-3924**
1.9	Business Phone / Fax:	+1 (770) 534-0300 / +1 (770) 534-8954

2. HAZARDS IDENTIFICATION

2.1 Hazard Identification:

This product is classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia)

WARNING! FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED. HIGHLY FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION.

Classification: Level 1 Aerosol; Category 2 Flammable Aerosol

Hazard Statements (H): H-223– Flammable Aerosol. H229–Pressurized container: may burst if heated. H320 – Causes eye irritation.

Precautionary Statement (P):

P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking.
P211 – Do not spray on an open flame or other ignition source.
P251 – Do not pierce or burn, even after use.
P261 – avoid breathing vapors/spray.
P271 – Use only in well-ventilated area.
P304+P340 – IF INHALED; Remove person to fresh air and keep comfortable for breathing.
P305+P351+338 – IF INEYES; Rinse cautiously with water for several minutes. Remove contact lenses, if present, continue rinsing.
P337+P313 – If eye irritation persists: Get medical advice/attention.
P410+P412 – Protect from sunlight. Do no expose to temperature exceeding 48°C (120 °F).
P501 – Dispose of contents/container to licensed and permitted disposal or recycling facility.

3. COMPOSITION & INGREDIENT INFORMATION

Substance / Chemical Name(s)	CAS No.	EINECS No.	%	Other
DIFLUOROETHANE (R-152a)	75-37-6	200-866-1	30– 50	Flam. Gas 1; H220
Isobutane	75-28-5	200-857-2	5 – 20	Flam. Gas 1; H220
Ethanol (SD Alcohol 40B)	64-17-5	200-578-6	30 - 45	Flam. Liq. 2; H225

4. FIRST AID MEASURES

4.1	First Aid:	Ingestion:	If ingested, do not induce vomiting! If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give water or milk to an unconscious person. Contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed.
		Skin:	If irritation occurs & product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with plenty of soap and water. Remove contaminated clothing and wash thoroughly before ruse. If irritation, redness or swelling persists, consult a physician immediately.
		Eyes:	If product get in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. Raise and lower eyelid(s) while flushing to ensure thorough irrigation. If problems persist seek immediate medical attention.
		Inhalation:	Remove victim to fresh air and keep comfortable for breathing.
4.2	Effects of Exposure:	Ingestion:	If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression.
		Skin:	May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals upon prolonged or repeated exposure.
		Eyes:	Moderately irritating to the eyes.

		Inhalation:	Vapors of this product may be moderately irritating to the nose, throat and other tissues of the respiratory system. Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing. Inhalation of concentrated vapors can cause nervous system depression (e.g., drowsiness, dizziness, headaches, nausea).
4.3	Symptoms of Overexposure	Ingestion:	May cause nausea, vomiting and/or diarrhea and central nervous system depression.
		Skin:	Prolonged contact with skin may result in bleaching and irritation of skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas.
		Eyes:	Overexposure in eyes, may cause redness, itching and watering (risk of serious damage to eyes) Contact may cause mild eye irritation including stinging, watering and redness.
		Inhalation:	Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing.
4.4	Acute Health Effects:	Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.	
4.5	Chronic Health Effects:	No harmful or chronic health effects are expected to occur from a single accidental ingestion. These ingredients may be irritating to skin and mucous membrane of the eye and respiratory system. Overexposure may trigger asthma-like symptoms in some sensitive individuals. May also induce skin sensitization and respiratory hypersensitivity. Possible allergic dermatitis.	
4.6	Target Organs:	Eyes, skin, respiratory system.	
4.7	Medical Conditions Aggravated by Exposure	Acute health hazards may be delayed. Most common symptoms include irritating properties to eyes, respiratory system and skin. Existing dermatological conditions (such as eczema) and respiratory conditions (such as bronchial asthma and/or bronchitis) may be exacerbated.	

HEALTH			**1**
FLAMMABILITY			**3**
PHYSICAL HAZARDS			**0**
PROTECTIVE EQUIPMENT			**B**
EYES	**SK IN**		

5. FIREFIGHTING MEASURES

5.1	Fire and Explosion Hazards:	Level 1 Aerosol (NFPA 30B). Aerosols may burst at temperatures above 120° F (48°C). Cool uninvolved containers to prevent possible bursting. Aerosols may be projectile hazards when bursting. If aerosols are bursting, stay clear until bursting is complete. Containers may rupture and release flammable liquids and/or exposed gases if exposed to the heat of fire. Keep containers cool by spraying them with water until the fire has been extinguished.
5.2	Extinguishing Methods:	Water Fog, Foam, CO_2, Dry Chemical
5.3	Firefighting Procedures:	As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressure-demand_ and full protective gear. Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personnel. Fight fire upwind. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies.

6. ACCIDENTIAL RELEASE MEASURES

6.1	Spills:	Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment (PPE). Small spills Wear appropriate personal protective equipment including gloves and protective eyewear. Use a non-combustible material such as vermiculite or sand to soak up the product and place into a container for later disposal. Do not use water or a material such as "speedy dry" to soak up material. Sweep up material using non-sparking materials (e.g., plastic brooms, shovels, dustpans) and place into a plastic container or plastic liner within another container. Large spills: Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant.

7. HANDLING AND STORAGE INFORMATION

7.1	Work & Hygiene Practices	Do not eat, drink, or smoke while handling this product. Contents under pressure. Handle as to avoid puncturing container(s). When used as intended, no additional protective equipment is necessary. Use chemical goggles if eye contact is possible. Wash unintentional residues with soap and warm water.

7.2	Storage and Handling:	Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans) away from heat and direct sunlight. Avoid temperatures above 120 °F (48°C). Keep away from incompatible substances. Protect containers from physical damage. To avoid unintentional spraying, keep cap in place when not in use. Storage level 1.
7.3	Special Precautions:	Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 Exposure Limits: Ppm (mg/m^3)

Chemical Name(s)	ACGIH		NOHSC			OSHA			OTHER
	TLV	STEL	ES-TWA	ES-STEL	ES-PEAK	PEL	STEL	IDLH	
Ethanol (SD Alcohol 40B)	1000	3000	1000	1800	NF	1000	1900	3300	
DIFLUOROETHANE (R-152a)	1000	NA	1000	NA	NA	NE	NA	NA	
Isobutane	600	750	NF	NF	NA	NA	NA	NA	

8.2	Ventilation & Engineering Controls	General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use. Use local or general exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the handling of this product.	
8.3	Respiratory Protection:	No special respiratory protection is required under typical circumstances of use or handling. In instances where dusts of this product are generated, and respiratory protection is needed, use only protection authorized by 29 CFR §1910.134, applicable U.S. State regulations, or the Canadian CAS Standard Z94.4-93 and applicable standards of Canadian Provinces, EC member States, or Australia.	
8.4	Eye Protection:	None required under normal conditions of use. Avoid eye contact. Safety glasses should be used when handling or using large quantities of this product (e.g., ≥ 1 gallon (3.8 L)).	
8.5	Hand Protection:	None required under normal conditions of use. However, may cause skin irritation is some sensitive individuals. When handling large quantities (e.g., ≥ 1 gallon (3.8 L)), wear rubber, nitrile or impervious plastic gloves.	
8.6	Body Protection:	No apron required when handling small quantities. When handling large quantities (e.g., ≥ 5 lbs.), eye wash station and deluge showers should be available. Upon completion of work activities involving large quantities of this product, wash any exposed areas thoroughly with soap and water.	

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Aerosol, misty spray
9.2	Odor:	Fresh Sweet odor
9.3	Odor Threshold	NA
9.4	pH:	NA
9.5	Melting/Freezing Point	NA
9.6	Initial Boiling Point/ Boiling Range:	NA
9.7	Flashpoint:	-30 °F (-34 °C) TCC for propellant only; 35.6 ^{0}F (2 ^{0}C) EPA method 1010 Concentrate only
9.8	Upper/Lower Flammability limits	NA
9.9	Vapor Pressure:	@ 20 °C (68° F) – Can pressure not to exceed 180 psig @ 55 °C (131 °F) 12.4 bar
9.10	Vapor Density	>1
9.11	Relative Density:	0.85 – 0.95
9.12	Solubility:	Soluble
9.13	Partition Coefficient (log P_{ow}):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature.	NA
9.16	Viscosity:	Aerosol at ambient temperature
9.17	Other Information:	Evaporation Rate >1

10. STABILITY & REACTIVITY

10.1	Stability:	Stable at normal temperatures.
10.2	Hazardous Decomposition Products:	Oxides of carbon (CO, CO_2) and sulfur (SO_2)
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid	Excessive heat, direct sunlight, flames, heat sources and incompatible substances.
10.5	Incompatible Substances	Mixture with strong acids, alkalis or oxidizers.

11. TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Inhalation:	YES	Absorption:	YES	Ingestion:	YES
11.2	Toxicity Data:	This product was not tested on animals.					
11.3	Acute Toxicity:	See Section 4.4					
11.4	Chronic Toxicity:	See Section 4.5					
11.5	Suspected Carcinogen:	NA					
11.6	Reproductive Toxicity:	This product is not reported to cause reproductive toxicity in humans.					
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.					
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.					
	Teratogenicity:	This product is not report to cause teratogenic effects in humans.					
	Reproductive Toxicity:	This product is not report to cause reproductive effects in humans.					
11.7	Irritancy of Product:	See Section 4.3					
11.8	Biological Exposure Indices:	NA					
11.9	Physician Recommendations:	Treat symptomatically.					

12. ECOLOGICAL INFORMATION

12.1	Environmental Stability:	There is no specific data available for this product.
12.2	Effects on Plants & Animals	There is no specific data available for this product.
12.3	Effects on Aquatic Life:	The product itself has not been tested as a whole. There is no specific data available for this product.

13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal:	Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Any disposal practice must be in compliance with local, state and federal laws and regulations. Contact the appropriate agency for specific information. A licensed facility or waste hauler must provide treatment, transport, storage and disposal of hazardous waste.
13.2	Special Considerations:	U.S. EPA Hazardous Waste – Characteristic – Ignitable (D001)

14. TRANSPORTATION INFORMATION

14.1	49 CFR (GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or CONSUMER COMMODITY, ORM-D (IP VOL ≤ 1.0 L) – until 12/31/2020
14.2	IATA (AIR)	UN1950, AEROSOLS, FLAMMABLE, 2.1 (LTD QTY, IP VOL ≤ 0.5 L); or ID8000, CONSUMER COMMODITY, ORM-D (IP VOL ≤ 0.5 l=L)
14.3	IMDG (OCN):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
14.4	TDGR (Canadian GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or MARK PACKAGE "LIMITED QUANTITY", "LTD QTY", OR "QUANT LTÉE" OR "QUANTITÉ LIMITÉE"
14.5	ADR/RID (EU):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
14.6	SCT (MEXICO):	UN1950, AEROSOLES, 2.1 (CANTIDAD LIMITADA, IP VOL ≤ 1.0 L)
14.7	ADGR (AUS):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)

15. REGULATORY INFORMATION

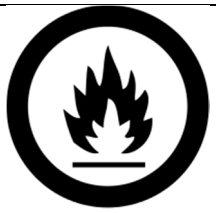
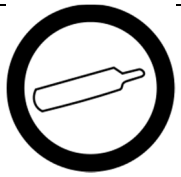
15.1	SARA Reporting Requirements:	This product does not contain any substance subject to SATA Title III, section 313 reporting requirements.
15.2	SARA Threshold Planning Quantity:	There are no specific Threshold Planning Quantities for the components of this product.
15.3	TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory.
15.4	CERCLA Reportable Quantity (RQ):	Ethanol: 2270 kg; 5000 lbs
15.5	Other Federal Requirements:	This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR Subchapter G. (Cosmetics)
15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR. The components of the product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substance List. WHMIS Class B5 (Flammable Aerosol)
15.7	State Regulatory Information:	Ethanol: is found on the following state criteria lists FL, MA, MN, NJ, PA, and WA Isobutane can be found on the following state criteria lists: MA, NJ, and PA. Difluoroethane can be found on the following state criteria lists: MA and NJ No other ingredients of this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI).
15.8	Other Requirements:	The primary components of this product are listed in Annex I of EU Directive 67/548/EEC: Isobutane: Flammable (F+). Risk Phrases (R): 12 – Highly Flammable. Safety Phrases (S): 2-9-16 – Keep out of reach of children. Keep container in a well- ventilated place. Keep away from sources of ignition – No smoking. Ethanol : Flammable (F). Risk Phrases (R): 11 – Flammable. Safety Phrase (S): 2-7-16 – Keep out of reach of children. Keep container tightly closed. Keep away from sources of ignition – No smoking

16. OTHER INFORMATION

16.1	Other Information:	**WARNING! FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED, HIGHLY FLAMMABLE LIQUID AND VAPORS. CAUSES EYE IRRITATION.** Keep away from heat, hot surfaces, sparks open flames and other ignition sources. No Smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid breathing vapor/spray. Wash thoroughly with soap and water after handling. Use only in a well ventilated area. Wear eye protection. Protect from sunlight. Do not expose to temperature exceeding 48°C (120°F). IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. **KEEP PRODUCT LOCKED-UP AND OUT OF REACH OF CHILDREN.**
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.
16.3	Disclaimer:	This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the base of KIK Custom Product's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or complete=ness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.
16.4	Prepared By:	**KIK Custom Products** 2030 Old Candler Road Gainesville, GA 30507 USA http://www.kikcorp.com

KIK CUSTOM PRODUCTS

Flammable	Explosive	Oxidizer
Pressurized	Corrosive	Toxic
Harmful/Irritating	Health Hazard	Environment
Face Shield and Protective Eyewear	Apron	Dust Mask
Scuba	Protective Clothing	Full Suit
Boots	Safety Glasses	Gloves

Full Face Respirator	Reactive	Irritant / Harmful
Biohazard	Oxidizing	 Flammable
Infectious	Corrosive	 Compressed
Toxic	Irritation	

1. Identification

1.1. Product identifier

Code: **77000**
Product name **THE SPOTLIGHT CIRCLE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

2. Hazards identification ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P314	Get medical advice / attention if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice / attention.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS 68607-24-9	3 ≤ x < 5	**Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC 271-756-9		
INDEX		
2,6,10-Trimethyldodecane		
CAS 3891-98-3	2 ≤ x < 5	**Aspiration hazard, category 1 H304**
EC 622-542-2		
INDEX		
docosyltrimethylammonium methyl sulphate		
CAS 81646-13-1	1 ≤ x < 2	**Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC 279-791-1		
INDEX		
cetrimonium chloride		
CAS 112-02-7	1 ≤ x < 2	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC 203-928-6		
INDEX		
Quaternium 87		
CAS 92201-88-2	1 ≤ x < 2	**Skin irritation, category 2 H315**
EC 296-019-9		
INDEX		
3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol		
CAS 10191-41-0	0.1 ≤ x < 1	**Skin sensitization, category 1 H317**
EC 233-466-0		
INDEX		

3. Composition/information on ingredients ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
CAS *54464-57-2* 0.1 ≤ x < 0.25 **Skin irritation, category 2 H315, Skin sensitization, category 1 H317**
EC *259-174-3*
INDEX

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6. Accidental release measures ... / >>

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		LUCID CREAM	
Colour		white	
Odour		STD. REF.	
Odour threshold		Not available	
pH		4,00 - 4,50	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		0,9906 - 1,0006	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		60.000,0000 - 100.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11. Toxicological information ... / >>

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

LD50 (Oral)	> 4000 mg/kg rat
LD50 (Dermal)	1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral)	3190 mg/kg rat
LD50 (Dermal)	3342 mg/kg coniglio

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

docosyltrimethylammonium methyl sulphate

LD50 (Oral)	3190 mg/kg rat

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3

11. Toxicological information ... / >>

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

May cause damage to organs

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and highly toxic for aquatic organisms.
This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish	3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea	128 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish	0.71 mg/l/96h
EC50 - for Crustacea	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.08 mg/l/72h
Chronic NOEC for Crustacea	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	< 1 mg/l/96h
EC50 - for Crustacea	< 1 mg/l/48h

docosyltrimethylammonium methyl sulphate

LC50 - for Fish	0.5 mg/l/96h
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna
Chronic NOEC for Fish	0.24 mg/l

12. Ecological information ... / >>

12.2. Persistence and degradability

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly degradable

cetrimonium chloride

Solubility in water 240 mg/l

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
Rapidly degradable

docosyltrimethylammonium methyl sulphate

Solubility in water 7 mg/l

12.3. Bioaccumulative potential

cetrimonium chloride

Partition coefficient: n-octanol/water 3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

14.1. UN number

ADR / RID, IMDG, IATA: 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; docosyltrimethylammonium methyl sulphate)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; docosyltrimethylammonium methyl sulphate)
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; docosyltrimethylammonium methyl sulphate)

14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 9	Label: 9	
IMDG:	Class: 9	Label: 9	
IATA:	Class: 9	Label: 9	

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous	
IMDG:	Marine Pollutant	
IATA:	Environmentally Hazardous	

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90 Special Provision: -	Limited Quantities: 5 L	Tunnel restriction code: (-)
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 450 L Maximum quantity: 450 L A97, A158, A197	Packaging instructions: 964 Packaging instructions: 964

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

15. Regulatory information ... / >>

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL
100-51-6 BENZYL ALCOHOL

Minnesota:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL
100-51-6 BENZYL ALCOHOL

New Jersey:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:
56-81-5 Glycerol
67-63-0 PROPAN-2-OL
100-51-6 BENZYL ALCOHOL

California:
67-63-0 PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS

Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances

- INRS - Fiche Toxicologique (toxicological sheet)- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

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R.E.A. PR 156502
Capitale soc. € 2.500.000,00 int. vers.

TECHNICAL INFORMATION SHEET
FINISHED COSMETIC PRODUCT

(*Hair spray - aerosol*)

PRODUCT AND MANUFACTURER IDENTIFICATION

Frame formula: *12.7 - 2013*
Brand name: THIS IS AN EXTRA STRONG HAIRSPRAY IT'S FOR MAXIMUM HOLD
Product description: hairspray
Manufacturer: Davines S.p.A., via Ravasini 9/A, 43126 Parma
Further information on each product and how to use it can be asked:
office to contact: Regulatory Affairs
numero telefonico: +39 0521 965621
emergency telephone number: +39 0521 965611
Date prepared: 29/08/2016
Revision number: 0

COMPOSITION/INFORMATION ON INGREDIENTS:

Below composition correspond to frame formulas related to category products, as defined by European experts including representatives of antipoison centres, competent Authorities and associations of cosmetic industries.

Frame formulas are accepted by Regulation (EC) 1223/2009 to notify cosmetic products through *Cosmetic Product Notification Portal*(CPNP), According to article 13.
Frame formulas (available at http://ec.europa.eu/consumers/sectors/cosmetics/cpnp/index_en.htm), specify ingredient categories and their maximum concentrations, allowing a quick product identification

Ingredients: DIMETHYL ETHER, ALCOHOL DENAT., AQUA / WATER / EAU, OCTYLACRYLAMIDE/ACRYLATES/BUTYLAMINOETHYL METHACRYLATE COPOLYMER, AMINOMETHYL PROPANOL, PARFUM / FRAGRANCE, TRIETHYL CITRATE

HAZARDS IDENTIFICATION

This product is safe for humans and environment if properly used, according to manufacturer indications. Following information are related to an improper utilization or accident.

Contact with eyes may be irritating. It can moderately irritate airways. Contents under pressure: container may explode in case of fire.
Extremely flammable

FIRST AID MEASURES

Eyes contact: it can irritate the eyes; remove contact lenses if used, flush immediately with plenty of water; if irritation persists, consult a doctor

Skin/mucosas contact: flush with plenty of water. In case of skin reaction, consult a doctor or a dermatologist.

Accidental ingestion: in case of massive ingestion consult a doctor or the nearest Anti-Poison Centre

Inhalation: bring person to open air. Consult a doctor or the nearest Anti-Poison Centre if irritation persists.

FIRE SAFETY

Flammability classification: extremely flammable***;*** it may explode in case of fire.
Exstinguishing media: dry powder extinguisher in case of small fire and nebulized water or foam if big.

Cool containers down with water.

Personal protective equipment: use glows, protective eyeglasses, antigas mask, etc.

SPILL, LEAK AND DISPOSAL PROCEDURES

Remove any free flame; block leak and aerate if this operation is not dangerous. Collect spillage with a cloth and flush with plenty of water. In case of massive spill, alert firemen.

Personal protection: use glows, protective eyeglasses, antigas mask, etc.

HANDLING AND STORAGE

Handling:

- Pressurized container. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122 °F
- Do not pierce or burn, even after use
- Do not spray on an open flame or other ignition source
- Keep away from heat/sparks/open flames/hot surfaces
- Do not smoke
- Carefully follow product instructions
- Use only as directed
- Avoid spraying in eyes or on irritated skin
- Avoid intentional inhaling
- Vaporize for shirt time intervals and ventilate after use
- Keep out of the reach of children
- Trashing only empty containers

PERSONAL PROTECTION / EXPOSURE CONTROL

During all phases of application , handling and rinsing you must use disposable plastic gloves , high forearm; it is advisable to protect your hands with a prior application of barrier creams; use working tools thoroughly cleaned; avoid nickel or iron tools ; avoid wearing jewelry.
The work environment must be adequately ventilated , possibly with mechanical parts air . Points where vapors, powders or gases can be emitted, or points where substances can be spilled, they must be arranged in distinct areas , with systems of local exhaust or collection systems. Whenever Employer identifies unavoidable risks or insufficiently reducible by other means, it is required to make available to workers appropriate Personal Protective Equipment(PPE)and their use is compulsory.

CHEMICAL PHYSICAL PROPERTIES

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Capitale soc. € 2.500.000,00 int. vers.

Aspect: **transparent liquid**
Odour: **characteristic**
pH: **/**

STABILITY AND REACTIVITY
Product stable at ambience temperature.

DISPOSAL INFORMATION
Follow all local guidelines

REGULATORY INFORMATION
Finished cosmetic products are manufactured and sold in conformity with Regulation (EC) 1223/2009 and subsequent amendments.

Finished cosmetic products are specifically excluded from the scope of Community legislation on dangerous substances and mixtures (Regulation (EC) 1272/2008) and from provisions of Title IV of Regulation (EC) 1907/2006 .

If from risk assessment it is necessary to activate health surveillance, the employer must appoint a competect physician.

OTHER INFORMATION
This sheet does not replace instructions of use.

All the information and instructions in this sheet are based on current state of knowledge (indicated in date on this sheet) and they are exclusively provided for handling and correct product use and for any intervention in case of emergency .

The above chemical-physical properties have the exclusive purpose of describing the product from safety point of view and they do not intended to guarantee any specific characteristic .

1. Identification

1.1. Product identifier

Code: **77004**
Product name **THE WAKE-UP CIRCLE**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **uso professionale**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Ravasini, 9/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centri antiveleni (24/24h):**
Pavia 0382/24444;
Milano 02/66101029;
Foggia 0881/732326
Bergamo 800 883300;
Firenze 055/7947819;
Roma Gemelli 06/3054343;
Roma Umberto I 06/49978000;
Napoli 081/7472870;

2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement

Specific target organ toxicity - repeated exposure, category 2	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	Causes serious eye damage.
Skin irritation, category 2	Causes skin irritation.
Skin sensitization, category 1	May cause an allergic skin reaction.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

Precautionary statements:
Prevention:

2. Hazards identification ... / >>

P260	Do not breathe dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P261	Avoid breathing dust and / or fume and / or gas and / or mist and / or vapours and / or spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves / eye protection / face protection.

Response:

P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER / doctor.
P314	Get medical advice / attention if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice / attention.
P333+P313	If skin irritation or rash occurs: Get medical advice / attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.

Storage:

--

Disposal:

P501	Dispose of contents and / or the container in accordance with the applicable local and national regulations.

2.2. Other hazards

Information not available

3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	**x = Conc. %**	**Classification:**
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
CAS *68607-24-9*	3 ≤ x < 5	**Specific target organ toxicity - repeated exposure, category 2 H373, Serious eye damage, category 1 H318, Skin irritation, category 2 H315**
EC *271-756-9*		
INDEX		
cetrimonium chloride		
CAS *112-02-7*	1 ≤ x < 2	**Acute toxicity, category 3 H311, Acute toxicity, category 4 H302, Skin corrosion, category 1C H314**
EC *203-928-6*		
INDEX		
3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol		
CAS *10191-41-0*	0.1 ≤ x < 1	**Skin sensitization, category 1 H317**
EC *233-466-0*		
INDEX		
4-tert-butylcyclohexyl acetate		
CAS *32210-23-4*	0.1 ≤ x < 1	**Skin sensitization, category 1 H317**
EC *250-954-9*		
INDEX		
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one		
CAS *54464-57-2*	0.1 ≤ x < 1	**Skin irritation, category 2 H315, Skin sensitization, category 1 H317**
EC *259-174-3*		
INDEX		

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. First-aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

5. Fire-fighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6. Accidental release measures ... / >>

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	LUCID CREAM
Colour	PURPLE
Odour	STD. REF.

9. Physical and chemical properties ... / >>

Odour threshold		Not available	
pH		4,00 - 4,70	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	93 °C	(199,4 °F)
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	
Vapour density		Not available	
Relative density		1,0011 - 1,0111	
Solubility		Not available	
Partition coefficient: n-octanol/water		Not available	
Auto-ignition temperature		Not available	
Decomposition temperature		Not available	
Viscosity		40.000,0000 - 65.000,0000	
Explosive properties		Not available	
Oxidising properties		Not available	

9.2. Other information

Information not available

10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

11. Toxicological information ... / >>

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	>2000 mg/kg

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

LD50 (Oral)	> 4000 mg/kg rat
LD50 (Dermal)	1480 mg/kg rabbit

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral)	3190 mg/kg rat
LD50 (Dermal)	3342 mg/kg coniglio

cetrimonium chloride

LD50 (Oral)	2410 mg/kg MALE/FEMALE RAT
LD50 (Dermal)	1600 mg/kg rabbit male/female

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LD50 (Oral)	> 5000 mg/kg Rat
LD50 (Dermal)	> 5000 mg/kg Rabbit

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

Carcinogenicity Assessment:
67-63-0 PROPAN-2-OL
IARC:3

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

May cause damage to organs

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-ol

EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish	3.5 mg/l/96h Danio rerio
Chronic NOEC for Crustacea	128 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish	0.71 mg/l/96h
EC50 - for Crustacea	0.09 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.08 mg/l/72h
Chronic NOEC for Crustacea	0.08 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

LC50 - for Fish	1.3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1.38 mg/l/48h Daphnia sp,
EC50 - for Algae / Aquatic Plants	> 2.6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Fish	0.3 mg/l 30d - Danio rerio (mortality post hatch survival)
Chronic NOEC for Crustacea	0.448 mg/l Mortality Daphnia magna (21d)
Chronic NOEC for Algae / Aquatic Plants	2.6 mg/l 72h

12.2. Persistence and degradability

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly degradable

cetrimonium chloride

Solubility in water	240 mg/l

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one

Solubility in water	2.68 mg/l

Rapidly degradable

12. Ecological information ... / >>

12.3. Bioaccumulative potential

cetrimonium chloride

Partition coefficient: n-octanol/water 3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

Information not available

12.6. Other adverse effects

Information not available

13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15. Regulatory information ... / >>

U.S. Federal Regulations

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:

67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:

67-63-0	PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations

Massachussetts:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL
100-51-6	BENZYL ALCOHOL

Minnesota:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL
100-51-6	BENZYL ALCOHOL

New Jersey:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL

New York:
No component(s) listed.

Pennsylvania:

56-81-5	Glycerol
67-63-0	PROPAN-2-OL
100-51-6	BENZYL ALCOHOL

15. Regulatory information ... / >>

California:
67-63-0 PROPAN-2-OL

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Candadian WHMIS
Information not available

16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code

16. Other information ... / >>

- REL: Recommended exposure limit- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**88006**
Product name	**YHA BLOWDRY PRIMER**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**professional use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)**
	Italia
	Tel. +39 0521 96 56 11
	Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2	Highly flammable liquid and vapour.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.

Precautionary statements:

Prevention:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground / bond container and receiving equipment.
P241	Use explosion-proof electrical / ventilating / lighting / . . . / equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P280	Wear protective gloves / eye protection / face protection.

Response:

SECTION 2. Hazards identification. ... / >>

P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
P370+P378	In case of fire: use . . . to extinguish.

Storage:

P403+P235	Store in a well-ventilated place. Keep cool.

Disposal:

P501	Dispose of contents / container to . . .

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification:**
ETHANOL		
CAS. 64-17-5	28.456	Flammable liquid, category 2 H225
PROPAN-2-OL		
CAS. 67-63-0	1.8	Flammable liquid, category 2 H225, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.
Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
	TLV-ACGIH	ACGIH 2014

ETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

SECTION 8. Exposure controls/personal protection. ... / >>

PROPAN-2-OL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	492	200	983	400
OSHA	USA	980	400		
CAL/OSHA	USA	980	400	1225	500
NIOSH	USA	980	400	1225	500

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
HAND PROTECTION
Protect hands with category III work gloves (OSHA 29 CFR 1910.138).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.
EYE PROTECTION
Wear airtight protective goggles (OSHA 29 CFR 1910.133).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		liquido trasparente		
Colour		colourless		
Odour		STD. RIF		
Odour threshold.		Not available.		
pH.		4,00 - 8,00		
Melting point / freezing point.		Not available.		
Initial boiling point.	>	35	°C.	(95 °F)
Boiling range.		Not available.		
Flash point.	<	23	°C.	(73,4 °F)
Evaporation rate		Not available.		
Flammability (solid, gas)		Not available.		
Lower inflammability limit.		Not available.		
Upper inflammability limit.		Not available.		
Lower explosive limit.		Not available.		
Upper explosive limit.		Not available.		
Vapour pressure.		Not available.		
Vapour density		Not available.		
Relative density.		0,9567 - 0,9667		Kg/l
Solubility		Not available.		
Partition coefficient: n-octanol/water		Not available.		
Auto-ignition temperature.		Not available.		
Decomposition temperature.		Not available.		
Viscosity		Not available.		
Explosive properties		Not available.		
Oxidising properties		Not available.		

SECTION 9. Physical and chemical properties. ... / >>

9.2. Other information.
Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.
There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.
The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.
The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid.
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials.
Information not available.

10.6. Hazardous decomposition products.
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled carefully according to good industrial practices. This product may have slight health effects on sensitive people, by inhalation and/or cutaneous absorption and/or contact with eyes and/or ingestion.

11.1. Information on toxicological effects.

ETHANOL	
LD50 (Oral).	> 5000 mg/kg Rat
LC50 (Inhalation).	120 mg/l/4h Pimephales promelas
PROPAN-2-OL	
LD50 (Oral).	4710 mg/kg Rat
LD50 (Dermal).	12800 mg/kg Rat
LC50 (Inhalation).	72.6 mg/l/4h Rat

Carcinogenicity Assessment:

64-17-5	ETHANOL
ACGIH:: A3	
IARC:1	
67-63-0	2-PROPANOLO
IARC:3	

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.

ETHANOL	
Solubility in water.	mg/l 1000 - 10000
Rapidly biodegradable.	
PROPAN-2-OL	
Rapidly biodegradable.	

12.3. Bioaccumulative potential.

SECTION 12. Ecological information. ... / >>

ETHANOL
Partition coefficient: n-octanol/water. -0.35

PROPAN-2-OL
Partition coefficient: n-octanol/water. 0.05

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Il trasporto dei rifiuti può essere soggetto ai regolamenti di trasporto per le merci pericolose.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

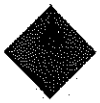
ADR / RID, IMDG, IATA: 1993

14.2. UN proper shipping name.

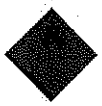
ADR / RID: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)
IMDG: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)
IATA: FLAMMABLE LIQUID, N.O.S. (ETHANOL; PROPAN-2-OL)

14.3. Transport hazard class(es).

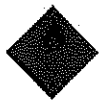
ADR / RID: Class: 3 Label: 3



IMDG: Class: 3 Label: 3



IATA: Class: 3 Label: 3



14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33 Special Provision: 640D	Limited Quantities: 1 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-E	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-63-0 PROPAN-2-OL

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
67-63-0 PROPAN-2-OL

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
64-17-5 ETHANOL
67-63-0 PROPAN-2-OL

SECTION 15. Regulatory information. ... / >>

Minnesota:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
140-11-4	

New Jersey:

138-86-3	DIPENTENE
64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
140-11-4	

New York:
No component(s) listed.

Pennsylvania:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL

California:

64-17-5	ETHANOL
67-63-0	PROPAN-2-OL
140-11-4	

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Eye Irrit. 2	Eye irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization

SECTION 16. Other information. .../>>

- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01.

KIK CUSTOM PRODUCTS

SAFETY DATA SHEET

KIK – B-9645G

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1.0 SDS Revision Date: 2/2/2015

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	**Davines – Definition Spray**
1.2	Chemical Name:	Aerosol Shine Spray
1.3	Synonyms:	Definition Spray – 55%VOC – B-9645G
1.4	Trade Names:	Definition Spray
1.5	Product Uses/ Restrictions	Professional and Cosmetic Use
1.6	Distributor's Name:	KIK Custom Products
1.7	Distributor's Address:	2030 Old Candler Road, Gainesville, GA 30507 USA
1.8	Emergency Phone:	**CHEMTEL: +1 (813) 248-0585 / +1 (800) 255-3924**
1.9	Business Phone / Fax:	+1 (770) 534-0300 / +1 (770) 534-8954

2. HAZARDS IDENTIFICATION

2.1 Hazard Identification:

This product is classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia)

DANGER! EXTREMELY FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED. HIGHLY FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION.

Classification: Level 3 Aerosol; Category 1 Extremely Flammable Aerosol

Hazard Statements (H): H-222– Extremely Flammable Aerosol. H229–Pressurized container: may burst if heated. H320 – Causes eye irritation.

Precautionary Statement (P):

P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking.
P211 – Do not spray on an open flame or other ignition source.
P251 – Do not pierce or burn, even after use.
P261 – avoid breathing vapors/spray.
P271 – Use only in well-ventilated area.
P304+P340 – IF INHALED; Remove person to fresh air and keep comfortable for breathing.
P305+P351+338 – IF INEYES; Rinse cautiously with water for several minutes. Remove contact lenses, if present, continue rinsing.
P337+P313 – If eye irritation persists: Get medical advice/attention.
P410+P412 – Protect from sunlight. Do no expose to temperature exceeding 48°C (120 °F).
P501 – Dispose of contents/container to licensed and permitted disposal or recycling facility.

3. COMPOSITION & INGREDIENT INFORMATION

Substance / Chemical Name(s)	CAS No.	EINECS No.	%	Other
Propane	74-98-6	200-827-9	5-20	Flam. Gas 1; H220
Isobutane	75-28-5	200-857-2	40 – 60	Flam. Gas 1; H220

4. FIRST AID MEASURES

4.1	First Aid:	Ingestion:	If ingested, do not induce vomiting! If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give water or milk to an unconscious person. Contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed.
		Skin:	If irritation occurs & product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with plenty of soap and water. Remove contaminated clothing and wash thoroughly before ruse. If irritation, redness or swelling persists, consult a physician immediately.
		Eyes:	If product get in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. Raise and lower eyelid(s) while flushing to ensure thorough irrigation. If problems persist seek immediate medical attention.
		Inhalation:	Remove victim to fresh air and keep comfortable for breathing.
4.2	Effects of Exposure:	Ingestion:	If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression.
		Skin:	May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals upon prolonged or repeated exposure.
		Eyes:	Moderately irritating to the eyes.

		Inhalation:	Vapors of this product may be moderately irritating to the nose, throat and other tissues of the respiratory system. Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing. Inhalation of concentrated vapors can cause nervous system depression (e.g., drowsiness, dizziness, headaches, nausea).
4.3	Symptoms of Overexposure	Ingestion:	May cause nausea, vomiting and/or diarrhea and central nervous system depression.
		Skin:	Prolonged contact with skin may result in bleaching and irritation of skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas.
		Eyes:	Overexposure in eyes, may cause redness, itching and watering (risk of serious damage to eyes) Contact may cause mild eye irritation including stinging, watering and redness.
		Inhalation:	Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing.
4.4	Acute Health Effects:	Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.	
4.5	Chronic Health Effects:	No harmful or chronic health effects are expected to occur from a single accidental ingestion. These ingredients may be irritating to skin and mucous membrane of the eye and respiratory system. Overexposure may trigger asthma-like symptoms in some sensitive individuals. May also induce skin sensitization and respiratory hypersensitivity. Possible allergic dermatitis.	
4.6	Target Organs:	Eyes, skin, respiratory system.	
4.7	Medical Conditions Aggravated by Exposure	Acute health hazards may be delayed. Most common symptoms include irritating properties to eyes, respiratory system and skin. Existing dermatological conditions (such as eczema) and respiratory conditions (such as bronchial asthma and/or bronchitis) may be exacerbated.	

HEALTH			**1**
FLAMMABILITY			**3**
PHYSICAL HAZARDS			**0**
PROTECTIVE EQUIPMENT			**B**
EYES	**SK IN**		

5. FIREFIGHTING MEASURES

5.1	Fire and Explosion Hazards:	Level 3 Aerosol (NFPA 30B). Aerosols may burst at temperatures above 120° F (48°C). Cool uninvolved containers to prevent possible bursting. Aerosols may be projectile hazards when bursting. If aerosols are bursting, stay clear until bursting is complete. Containers may rupture and release flammable liquids and/or exposed gases if exposed to the heat of fire. Keep containers cool by spraying them with water until the fire has been extinguished.
5.2	Extinguishing Methods:	Water Fog, Foam, CO_2, Dry Chemical
5.3	Firefighting Procedures:	As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressure-demand_ and full protective gear. Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personnel. Fight fire upwind. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies.

6. ACCIDENTIAL RELEASE MEASURES

6.1	Spills:	Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment (PPE). Small spills Wear appropriate personal protective equipment including gloves and protective eyewear. Use a non-combustible material such as vermiculite or sand to soak up the product and place into a container for later disposal. Do not use water or a material such as "speedy dry" to soak up material. Sweep up material using non-sparking materials (e.g., plastic brooms, shovels, dustpans) and place into a plastic container or plastic liner within another container. Large spills: Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant.

7. HANDLING AND STORAGE INFORMATION

7.1	Work & Hygiene Practices	Do not eat, drink, or smoke while handling this product. Contents under pressure. Handle as to avoid puncturing container(s). When used as intended, no additional protective equipment is necessary. Use chemical goggles if eye contact is possible. Wash unintentional residues with soap and warm water.

7.2	Storage and Handling:	Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans) away from heat and direct sunlight. Avoid temperatures above 120 °F (48°C). Keep away from incompatible substances. Protect containers from physical damage. To avoid unintentional spraying, keep cap in place when not in use. Storage level 1.
7.3	Special Precautions:	Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 Exposure Limits: Ppm (mg/m³)

Chemical Name(s)	ACGIH TLV	ACGIH STEL	NOHSC ES-TWA	NOHSC ES-STEL	NOHSC ES-PEAK	OSHA PEL	OSHA STEL	OSHA IDLH	OTHER
Propane	1000	NA	1000	NF	NF	1000	NA	2100	
Isobutane	600	750	NF	NF	NA	NA	NA	NA	

8.2	Ventilation & Engineering Controls	General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use. Use local or general exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the handling of this product.	
8.3	Respiratory Protection:	No special respiratory protection is required under typical circumstances of use or handling. In instances where dusts of this product are generated, and respiratory protection is needed, use only protection authorized by 29 CFR §1910.134, applicable U.S. State regulations, or the Canadian CAS Standard Z94.4-93 and applicable standards of Canadian Provinces, EC member States, or Australia.	
8.4	Eye Protection:	None required under normal conditions of use. Avoid eye contact. Safety glasses should be used when handling or using large quantities of this product (e.g., ≥ 1 gallon (3.8 L)).	
8.5	Hand Protection:	None required under normal conditions of use. However, may cause skin irritation is some sensitive individuals. When handling large quantities (e.g., ≥ 1 gallon (3.8 L)), wear rubber, nitrile or impervious plastic gloves.	
8.6	Body Protection:	No apron required when handling small quantities. When handling large quantities (e.g., ≥ 5 lbs.), eye wash station and deluge showers should be available. Upon completion of work activities involving large quantities of this product, wash any exposed areas thoroughly with soap and water.	

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Aerosol, misty oily spray
9.2	Odor:	Fresh Sweet odor
9.3	Odor Threshold	NA
9.4	pH:	NA
9.5	Melting/Freezing Point	NA
9.6	Initial Boiling Point/ Boiling Range:	NA
9.7	Flashpoint:	-30 °F (-34 °C) TCC for propellant only; 35.6 ^{0}F (2 ^{0}C) EPA method 1010 Concentrate only
9.8	Upper/Lower Flammability limits	NA
9.9	Vapor Pressure:	@ 20 °C (68° F) – Can pressure not to exceed 180 psig @ 55 °C (131 °F) 12.4 bar
9.10	Vapor Density	>1
9.11	Relative Density:	0.85 – 0.95
9.12	Solubility:	Soluble
9.13	Partition Coefficient (log P_{ow}):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature.	NA
9.16	Viscosity:	Aerosol at ambient temperature
9.17	Other Information:	Evaporation Rate >1

10. STABILITY & REACTIVITY

10.1	Stability:	Stable at normal temperatures.
10.2	Hazardous Decomposition Products:	Oxides of carbon (CO, CO_2) and sulfur (SO_2)
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid	Excessive heat, direct sunlight, flames, heat sources and incompatible substances.
10.5	Incompatible Substances	Mixture with strong acids, alkalis or oxidizers.

11. TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Inhalation:	YES	Absorption:	YES	Ingestion:	YES
11.2	Toxicity Data:	This product was not tested on animals.					
11.3	Acute Toxicity:	See Section 4.4					
11.4	Chronic Toxicity:	See Section 4.5					
11.5	Suspected Carcinogen:	NA					
11.6	Reproductive Toxicity:	This product is not reported to cause reproductive toxicity in humans.					
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.					
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.					
	Teratogenicity:	This product is not report to cause teratogenic effects in humans.					
	Reproductive Toxicity:	This product is not report to cause reproductive effects in humans.					
11.7	Irritancy of Product:	See Section 4.3					
11.8	Biological Exposure Indices:	NA					
11.9	Physician Recommendations:	Treat symptomatically.					

12. ECOLOGICAL INFORMATION

12.1	Environmental Stability:	There is no specific data available for this product.
12.2	Effects on Plants & Animals	There is no specific data available for this product.
12.3	Effects on Aquatic Life:	The product itself has not been tested as a whole. There is no specific data available for this product.

13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal:	Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Any disposal practice must be in compliance with local, state and federal laws and regulations. Contact the appropriate agency for specific information. A licensed facility or waste hauler must provide treatment, transport, storage and disposal of hazardous waste.
13.2	Special Considerations:	U.S. EPA Hazardous Waste – Characteristic – Ignitable (D001)

14. TRANSPORTATION INFORMATION

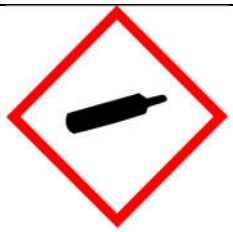
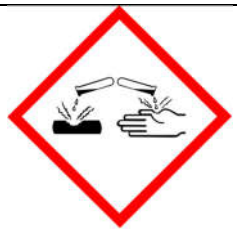
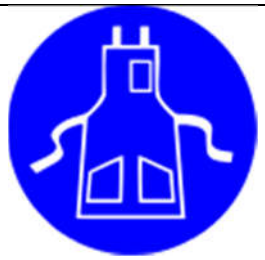
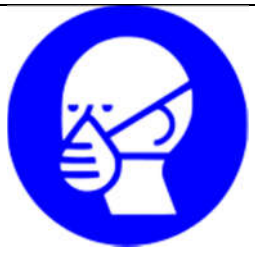
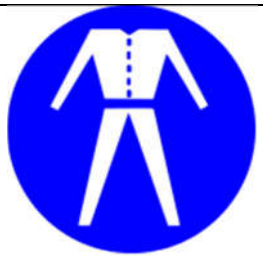
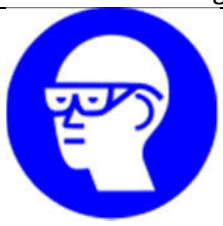
14.1	49 CFR (GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or CONSUMER COMMODITY, ORM-D (IP VOL ≤ 1.0 L) – until 12/31/2020
14.2	IATA (AIR)	UN1950, AEROSOLS, FLAMMABLE, 2.1 (LTD QTY, IP VOL ≤ 0.5 L); or ID8000, CONSUMER COMMODITY, ORM-D (IP VOL ≤ 0.5 l=L)
14.3	IMDG (OCN):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
14.4	TDGR (Canadian GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or MARK PACKAGE "LIMITED QUANTITY", "LTD QTY", OR "QUANT LTÉE" OR "QUANTITÉ LIMITÉE"
14.5	ADR/RID (EU):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
14.6	SCT (MEXICO):	UN1950, AEROSOLES, 2.1 (CANTIDAD LIMITADA, IP VOL ≤ 1.0 L)
14.7	ADGR (AUS):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)

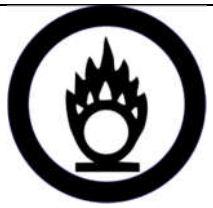
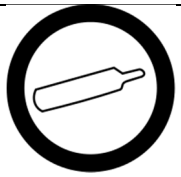
15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements:	This product does not contain any substance subject to SATA Title III, section 313 reporting requirements.
15.2	SARA Threshold Planning Quantity:	There are no specific Threshold Planning Quantities for the components of this product.
15.3	TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory.
15.4	CERCLA Reportable Quantity (RQ):	There are no specific Reportable Quantity
15.5	Other Federal Requirements:	This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR Subchapter G. (Cosmetics)
15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR. The components of the product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substance List. WHMIS Class B5 (Flammable Aerosol)
15.7	State Regulatory Information:	Isobutane can be found on the following state criteria lists: MA, NJ, and PA. Propane is found on the following state criteria lists: MA, MN, NJ, PA and WA No other ingredients of this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI).
15.8	Other Requirements:	The primary components of this product are listed in Annex I of EU Directive 67/548/EEC: Isobutane: Flammable (F+). Risk Phrases (R): 12 – Highly Flammable. Safety Phrases (S): 2-9-16 – Keep out of reach of children. Keep container in a well- ventilated place. Keep away from sources of ignition – No smoking. Propane: Flammable (F+). Risk Phrases (R). 12 – Highly Flammable. Safety Phrases (S): 2-9-16 – Keep out of reach of children. Keep container in a well-ventilated place. Keep away from sources of ignition – No smoking, Flammable (F+)

16. OTHER INFORMATION

16.1	Other Information:	**DANGER! EXTREMELY FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED, HIGHLY FLAMMABLE LIQUID AND VAPORS. CAUSES EYE IRRITATION.** Keep away from heat, hot surfaces, sparks open flames and other ignition sources. No Smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid breathing vapor/spray. Wash thoroughly with soap and water after handling. Use only in a well ventilated area. Wear eye protection. Protect from sunlight. Do not expose to temperature exceeding 48°C (120°F). IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. **KEEP PRODUCT LOCKED-UP AND OUT OF REACH OF CHILDREN.**
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.
16.3	Disclaimer:	This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the base of KIK Custom Product's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or complete=ness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.
16.4	Prepared By:	**KIK Custom Products** 2030 Old Candler Road Gainesville, GA 30507 USA http://www.kikcorp.com KIK CUSTOM PRODUCTS

Flammable	Explosive	Oxidizer
 Pressurized	 Corrosive	Toxic
Harmful/Irritating	Health Hazard	Environment
Face Shield and Protective Eyewear	 Apron	 Dust Mask
Scuba	 Protective Clothing	Full Suit
Boots	 Safety Glasses	Gloves

Full Face Respirator	Reactive	Irritant / Harmful
Biohazard	 Oxidizing	Flammable
Infectious	Corrosive	 Compressed
Toxic	Irritation	

KIK CUSTOM PRODUCTS

SAFETY DATA SHEET

B-9663C

Prepared to OSHA, ACC, ANSI, NOHSC, WHMIS, 2001/58 & 1272/2008/EC Standards SDS Revision: 1. SDS Revision Date: 02/2/2016

1. PRODUCT & COMPANY IDENTIFICATION

1.1	Product Name:	Davines – Perfecting Hair Spray
1.2	Chemical Name:	Aerosol Hair Spray
1.3	Synonyms:	Davines – Perfecting Hair Spray 55%VOC – B-9663C
1.4	Trade Names:	Perfecting Hair Spray
1.5	Product Uses & Restrictions	Professional and Cosmetic Use
1.6	Distributor's Name:	KIK Custom Products
1.7	Distributor's Address:	2030 Old Candler Road, Gainesville, GA 30507 USA
1.8	Emergency Phone:	**CHEMTEL: +1 (813) 248-0585 / +1 (800) 255-3924**
1.9	Business Phone / Fax:	+1 (770) 534-0300 / +1 (770) 534-8954

2. HAZARDS IDENTIFICATION

2.1	Hazard Identification:	This product is classified as a HAZARDOUS SUBSTANCE and as DANGEROUS GOODS according to the classification criteria of NOHSC: 1088 (2004) and ADG Code (Australia) **WARNING! FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED. HIGHLY FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION.** Classification: Aerosol level 1; Category 2 Flammable aerosol; Eye Irrit. 2 Hazard Statements (H): H-223 – Flammable Aerosol. H229 – Pressurized container: may burst if heated. H320 – Causes eye irritation. Precautionary Statement (P): P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking. P211 – Do not spray on an open flame or other ignition source. P251 – Do not pierce or burn, even after use. IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. P337+P313 – If eye irritation persists: Get medical advice/attention. P410+P412 – Protect from sunlight. Do no expose to temperature exceeding 50°C (122 °F). P501 – Dispose of contents/container to licensed and permitted disposal or recycling facility.

3. COMPOSITION & INGREDIENT INFORMATION

Substance / Chemical Name(s)	CAS No.	EINECS No.	%	Other
ETHANOL (SD ALCOHOL 40B)	64-17-5	200-578-6	30-60	Flam. Liq. 2; H225
DIFLUOROETHANE (R-152a)	75-37-6	200-866-1	30-45	Flam. Gas 1; H220

4. FIRST AID MEASURES

4.1	First Aid:	Ingestion:	If ingested, do not induce vomiting! If product has been swallowed, drink plenty of water or milk IMMEDIATELY. If the patient is vomiting, continue to offer water or milk. Never give water or milk to an unconscious person. Contact the nearest Poison Control Center or local emergency number. Provide an estimate of the time at which the material was ingested and the amount of the substance that was swallowed.
		Skin:	If irritation occurs & product is on the skin, rinse thoroughly with lukewarm water, followed by a thorough washing of the affected area with plenty of soap and water. Remove contaminated clothing and wash thoroughly before ruse. If irritation, redness or swelling persists, consult a physician immediately.
		Eyes:	If product get in the eyes, flush with copious amounts of lukewarm water for at least 15 minutes. Raise and lower eyelid(s) while flushing to ensure thorough irrigation. If problems persist seek immediate medical attention.
		Inhalation:	Remove victim to fresh air and keep comfortable for breathing.
4.2	Effects of Exposure:	Ingestion:	If product is swallowed, may cause nausea, vomiting and/or diarrhea and central nervous system depression.
		Skin:	May be irritating to skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals upon prolonged or repeated exposure.
		Eyes:	Moderately irritating to the eyes.
		Inhalation:	Vapors of this product may be moderately irritating to the nose, throat and other tissues of the respiratory system. Symptoms of overexposure can include coughing, wheezing, nasal congestion,

			and difficulty breathing. Inhalation of concentrated vapors can cause nervous system depression (e.g., drowsiness, dizziness, headaches, nausea).
4.3	Symptoms of Overexposure	Ingestion:	May cause nausea, vomiting and/or diarrhea and central nervous system depression.
		Skin:	Prolonged contact with skin may result in bleaching and irritation of skin. The product can cause allergic skin reactions (e.g., rashes, welts, dermatitis) in some sensitive individuals. Symptoms of skin overexposure may include redness, itching, and irritation of affected areas.
		Eyes:	Overexposure in eyes, may cause redness, itching and watering (risk of serious damage to eyes) Contact may cause mild eye irritation including stinging, watering and redness.
		Inhalation:	Symptoms of overexposure can include coughing, wheezing, nasal congestion, and difficulty breathing.
4.4	Acute Health Effects:	Moderate irritation to eyes and skin near affected areas. Additionally, high concentrations of vapors can cause drowsiness, dizziness, headaches and nausea.	
4.5	Chronic Health Effects:	No harmful or chronic health effects are expected to occur from a single accidental ingestion. These ingredients may be irritating to skin and mucous membrane of the eye and respiratory system. Overexposure may trigger asthma-like symptoms in some sensitive individuals. May also induce skin sensitization and respiratory hypersensitivity. Possible allergic dermatitis.	
4.6	Target Organs:	Eyes, skin, respiratory system.	
4.7	Medical Conditions Aggravated by Exposure	Acute health hazards may be delayed. Most common symptoms include irritating properties to eyes, respiratory system and skin. Existing dermatological conditions (such as eczema) and respiratory conditions (such as bronchial asthma and/or bronchitis) may be exacerbated.	

HEALTH		**1**
FLAMMABILITY		**3**
PHYSICAL HAZARDS		**0**
PROTECTIVE EQUIPMENT		**B**
EYES	**SK IN**	

5. FIREFIGHTING MEASURES

5.1	Fire and Explosion Hazards:	Level 1 Aerosol (NFPA 30B). Aerosols may burst at temperatures above 120° F. Cool uninvolved containers to prevent possible bursting. Aerosols may be projectile hazards when bursting. If aerosols are bursting, stay clear until bursting is complete. Containers may rupture and release flammable liquids and/or exposed gases if exposed to the heat of fire. Keep containers cool by spraying them with water until the fire has been extinguished.
5.2	Extinguishing Methods:	Water Fog, Foam, CO_2, Dry Chemical
5.3	Firefighting Procedures:	As in any fire, wear MSHA/NIOSH approved self-contained breathing apparatus (pressure-demand_ and full protective gear. Keep containers cool until well after the fire is out. Use water spray to cool fire-exposed surfaces and to protect personnel. Fight fire upwind. Prevent runoff from fire control or dilution from entering sewers, drains, drinking water supply, or any natural waterway. Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies.

6. ACCIDENTIAL RELEASE MEASURES

6.1	Spills:	Before cleaning any spill or leak, individuals involved in spill cleanup must wear appropriate Personal Protective Equipment (PPE). Small spills Wear appropriate personal protective equipment including gloves and protective eyewear. Use a non-combustible material such as vermiculite or sand to soak up the product and place into a container for later disposal. Do not use water or a material such as "speedy dry" to soak up material. Sweep up material using non-sparking materials (e.g., plastic brooms, shovels, dustpans) and place into a plastic container or plastic liner within another container. Large spills: Keep incompatible materials (e.g., organics such as oil) away from spill. Stay upwind and away from spill or release. Isolate immediate hazard area and keep unauthorized personnel out of area. Stop spill or release if it can be done with minimal risk. Wear appropriate protective equipment including respiratory protection as conditions warrant.

7. HANDLING AND STORAGE INFORMATION

7.1	Work & Hygiene Practices	Do not eat, drink, or smoke while handling this product. Contents under pressure. Handle as to avoid puncturing container(s). When used as intended, no additional protective equipment is necessary. Use chemical goggles if eye contact is possible. Wash unintentional residues with soap and warm water.

7.2	Storage and Handling:	Use and store in a cool, dry, well-ventilated location (e.g., local exhaust ventilation, fans) away from heat and direct sunlight. Avoid temperatures above 120 °F. Keep away from incompatible substances. Protect containers from physical damage. To avoid unintentional spraying, keep cap in place when not in use. Storage level 2.
7.3	Special Precautions:	Spilled material may present a slipping hazard if left unattended. Clean all spills promptly.

8. EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 Exposure Limits: Ppm (mg/m³)

Chemical Name(s)	ACGIH TLV	ACGIH STEL	NOHSC ES-TWA	NOHSC ES-STEL	NOHSC ES-PEAK	OSHA PEL	OSHA STEL	OTHER
ETHANOL(SD ALCOHOL 40B)	1000	3000	1000	1800	NF	1000	1900	
DIFLOROETHANE (R-152a)	1000	NA	1000	NA	NA	NE	NA	

8.2	Ventilation & Engineering Controls	General mechanical (e.g., fans) or natural ventilation is sufficient when this product is in use. Use local or general exhaust ventilation to effectively remove and prevent buildup of vapors or mist generated from the handling of this product.	
8.3	Respiratory Protection:	No special respiratory protection is required under typical circumstances of use or handling. In instances where dusts of this product are generated, and respiratory protection is needed, use only protection authorized by 29 CFR §1910.134, applicable U.S. State regulations, or the Canadian CAS Standard Z94.4-93 and applicable standards of Canadian Provinces, EC member States, or Australia.	
8.4	Eye Protection:	None required under normal conditions of use. Avoid eye contact. Safety glasses should be used when handling or using large quantities of this product (e.g., ≥ 1 gallon (3.8 L)).	
8.5	Hand Protection:	None required under normal conditions of use. However, may cause skin irritation is some sensitive individuals. When handling large quantities (e.g., ≥ 1 gallon (3.8 L)), wear rubber, nitrile or impervious plastic gloves.	
8.6	Body Protection:	No apron required when handling small quantities. When handling large quantities (e.g., ≥ 5 lbs.), eye wash station and deluge showers should be available. Upon completion of work activities involving large quantities of this product, wash any exposed areas thoroughly with soap and water.	

9. PHYSICAL & CHEMICAL PROPERTIES

9.1	Appearance:	Aerosol, clear misty spray of liquid
9.2	Odor:	Fresh Floral
9.3	Odor Threshold	NA
9.4	pH:	NA
9.5	Melting/Freezing Point	NA
9.6	Initial Boiling Point/ Boiling Range:	NA
9.7	Flashpoint:	-30 °F (-34 °C) TCC for propellant only: 35.6 °F (2 °C) EPA method 1010 (concentrate only)
9.8	Upper/Lower Flammability limits	NA
9.9	Vapor Pressure:	@ 20 °C (68° F) – Can pressure not to exceed 180 psig @ 55 °C (131 °F) 12.4 bar
9.10	Vapor Density	>1
9.11	Relative Density:	0.81-0.85
9.12	Solubility:	Soluble
9.13	Partition Coefficient (log P_{ow}):	NA
9.14	Autoignition Temperature:	NA
9.15	Decomposition Temperature.	NA

9.16	Viscosity:	Aerosol at ambient temperature
9.17	Other Information:	Evaporation Rate >1: Percent Volatile 55%

10. STABILITY & REACTIVITY

10.1	Stability:	Stable at normal temperatures.
10.2	Hazardous Decomposition Products:	Oxides of carbon (CO, CO_2) and sulfur (SO_2)
10.3	Hazardous Polymerization:	Will not occur.
10.4	Conditions to Avoid	Excessive heat, direct sunlight, flames, heat sources and incompatible substances.
10.5	Incompatible Substances	Mixture with strong acids, alkalis or oxidizers.

11. TOXICOLOGICAL INFORMATION

11.1	Routes of Entry:	Inhalation:	YES	Absorption:	YES	Ingestion:	YES
11.2	Toxicity Data:	This product was not tested on animals. Toxicology data, found in scientific literature, is available and not presented in this document. Hydrofluorocarbon-152a: LC_{50} (inh, 2 h, mouse): 977 g/m^3					
11.3	Acute Toxicity:	See Section 4.4					
11.4	Chronic Toxicity:	See Section 4.5					
11.5	Suspected Carcinogen:	No.					
11.6	Reproductive Toxicity:	This product is not reported to cause reproductive toxicity in humans.					
	Mutagenicity:	This product is not reported to produce mutagenic effects in humans.					
	Embryotoxicity:	This product is not reported to produce embryotoxic effects in humans.					
	Teratogenicity:	This product is not report to cause teratogenic effects in humans.					
	Reproductive Toxicity:	This product is not report to cause reproductive effects in humans.					
11.7	Irritancy of Product:	See Section 4.3					
11.8	Biological Exposure Indices:	NA					
11.9	Physician Recommendations:	Treat symptomatically.					

12. ECOLOGICAL INFORMATION

12.1	Environmental Stability:	There is no specific data available for this product.
12.2	Effects on Plants & Animals	There is no specific data available for this product.
12.3	Effects on Aquatic Life:	The product itself has not been tested as a whole. There is no specific data available for this product.

13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal:	Review current local, state and federal laws, codes, statutes and regulations to determine current status and appropriate disposal method for the ingredients listed in Section 2. Any disposal practice must be in compliance with local, state and federal laws and regulations. Contact the appropriate agency for specific information. A licensed facility or waste hauler must provide treatment, transport, storage and disposal of hazardous waste.
13.2	Special Considerations:	U.S. EPA Hazardous Waste – Characteristic – Ignitable (D001)

14. TRANSPORTATION INFORMATION

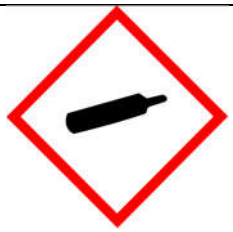
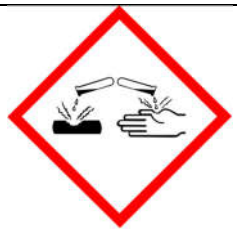
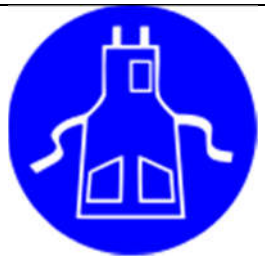
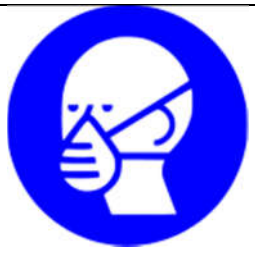
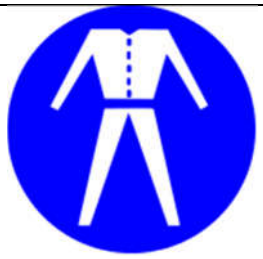
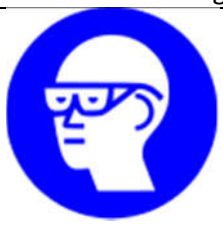
14.1	49 CFR (GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or CONSUMER COMMODITY, ORM-D (IP VOL ≤ 1.0 L) – until 12/31/2020
14.2	IATA (AIR)	UN1950, AEROSOLS, FLAMMABLE, 2.1 (LTD QTY, IP VOL ≤ 0.5 L); or ID8000, CONSUMER COMMODITY, ORM-D (IP VOL ≤ 0.5 l=L)
14.3	IMDG (OCN):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
14.4	TDGR (Canadian GND):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L); or MARK PACKAGE "LIMITED QUANTITY", "LTD QTY", OR "QUANT LTÉE" OR "QUANTITÉ LIMITÉE"
14.5	ADR/RID (EU):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)
14.6	SCT (MEXICO):	UN1950, AEROSOLES, 2.1 (CANTIDAD LIMITADA, IP VOL ≤ 1.0 L)
14.7	ADGR (AUS):	UN1950, AEROSOLS, 2.1 (LTD QTY, IP VOL ≤ 1.0 L)

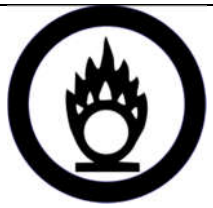
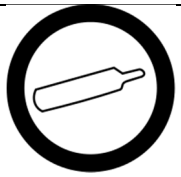
15. REGULATORY INFORMATION

15.1	SARA Reporting Requirements:	This product does not contain any substance subject to SATA Title III, section 313 reporting requirements.
15.2	SARA Threshold Planning Quantity:	There are no specific Threshold Planning Quantities for the components of this product.
15.3	TSCA Inventory Status:	The components of this product are listed on the TSCA Inventory.
15.4	CERCLA Reportable Quantity (RQ):	Ethanol: 2270 kg; 5000 lbs.
15.5	Other Federal Requirements:	This product complies with the appropriate sections of the Food and Drug Administration's 21 CFR Subchapter G. (Cosmetics)
15.6	Other Canadian Regulations:	This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR. The components of the product are listed on the DSL/NDSL. None of the components of this product are listed on the Priorities Substance List. WHMIS Class B5 (Flammable Aerosol)
15.7	State Regulatory Information:	Ethanol is found on the following state criteria lists: Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Pennsylvania Right-to-Know list (PA), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ). Difluoroethane can be found on the following state criteria lists: MA and NJ. No other ingredients of this product, present in a concentration of 1.0% or greater, are listed on any of the following state criteria lists: California Proposition 65 (CA65), Delaware Air Quality Management List (DE), Florida Toxic Substances List (FL), Massachusetts Hazardous Substances List (MA), Michigan Critical Substances List (MI), Minnesota Hazardous Substances List (MN), New Jersey Right-to-Know List (NJ), New York Hazardous Substances List (NY), Pennsylvania Right-to-Know List (PA), Washington Permissible Exposures List (WA), Wisconsin Hazardous Substances List (WI).
15.8	Other Requirements:	The primary components of this product are listed in Annex I of EU Directive 67/548/EEC: Ethanol: Flammable (F). Risk Phrases ®: 11 – Flammable. Safety Phrases (S): 2-7-16 – Keep out of reach of children. Keep container tightly closed. Keep away from sources of ignition – No smoking.

16. OTHER INFORMATION

16.1	Other Information:	**WARNING! FLAMMABLE AEROSOL. PRESSURIZED CONTAINER: MAY BURST IF HEATED, HIGHLY FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION.** Keep away from heat, hot surfaces, sparks open flames and other ignition sources. No Smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid breathing vapor/spray. Wash thoroughly with soap and water after handling. Use only in a well ventilated area. Wear eye protection. Protect from sunlight. Do not expose to temperature exceeding 50 °C (122 °F). IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. **KEEP OUT OF REACH OF CHILDREN.**
16.2	Terms & Definitions:	See last page of this Safety Data Sheet.
16.3	Disclaimer:	This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR §1910.1200. Other government regulations must be reviewed for applicability to this product. To the base of KIK Custom Product's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or complete=ness are not guaranteed and no warranties of any type, either expressed or implied, are provided. The information contained herein relates only to the specific product(s). If this product(s) is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.
16.4	Prepared By:	**KIK Custom Products** 2030 Old Candler Road Gainesville, GA 30507 USA Tel: +1 (770) 534-0300 Fax: +1 (770) 534-8954 http://www.kikcorp.com

Flammable	Explosive	Oxidizer
 Pressurized	 Corrosive	Toxic
Harmful/Irritating	Health Hazard	Environment
Face Shield and Protective Eyewear	 Apron	 Dust Mask
Scuba	 Protective Clothing	Full Suit
Boots	 Safety Glasses	Gloves

Full Face Respirator	Reactive	Irritant / Harmful
Biohazard	 Oxidizing	Flammable
Infectious	Corrosive	 Compressed
Toxic	Irritation	

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**88007**
Product name	**YHA VOLUME CREATOR**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**Not available**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

Hazard pictograms: --
Signal words: --

Hazard statements: --

Precautionary statements:
Prevention:
--
Response:
--
Storage:
--
Disposal:
--

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200).

SECTION 3. Composition/information on ingredients. ... / >>

3.2. Mixtures.

Information not relevant.

SECTION 4. First aid measures.

4.1. Description of first aid measures.
Not specifically necessary. Observance of good industrial hygiene is recommended.

4.2. Most important symptoms and effects, both acute and delayed.
No episodes of damage to health ascribable to the product have been reported.

4.3. Indication of any immediate medical attention and special treatment needed.
Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.
SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture.
HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters.
GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS. EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.
Use breathing equipment if fumes or powders are released into the air. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.
The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.
Confine using earth or inert material. Collect as much material as possible and eliminate the rest using jets of water. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.
Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.
Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

7.2. Conditions for safe storage, including any incompatibilities.
Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).
Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Information not available.

8.2. Exposure controls.

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
PROTEZIONE RESPIRATORIA
Non necessario, salvo diversa indicazione nella valutazione del rischio chimico.
ENVIRONMENTAL EXPOSURE CONTROLS.
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance		powder	
Colour		brown	
Odour		Not available.	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.		Not available.	
Boiling range.		Not available.	
Flash point.	>	93 °C.	(199,4 °F)
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		Not available.	
Vapour density		Not available.	
Relative density.		Not available.	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		Not available.	
Explosive properties		Not available.	
Oxidising properties		Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials.

Information not available.

SECTION 10. Stability and reactivity. ... / >>

10.6. Hazardous decomposition products.
Information not available.

SECTION 11. Toxicological information.

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects.

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, and OSHA.
Information not available.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.
Information not available.

12.2. Persistence and degradability.
Information not available.

12.3. Bioaccumulative potential.
Information not available.

12.4. Mobility in soil.
Information not available.

12.5. Results of PBT and vPvB assessment.
Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.
Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

Not applicable.

14.2. UN proper shipping name.

Not applicable.

14.3. Transport hazard class(es).

Not applicable.

14.4. Packing group.

Not applicable.

14.5. Environmental hazards.

Not applicable.

SECTION 14. Transport information. ... / >>

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

Clean Air Act Section 112(b):
No component(s) listed.

Clean Air Act Section 602 Class I Substances:
No component(s) listed.

Clean Air Act Section 602 Class II Substances:
No component(s) listed.

Clean Water Act – Priority Pollutants:
No component(s) listed.

Clean Water Act – Toxic Pollutants:
No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
No component(s) listed.

EPCRA 302 EHS TPQ:
No component(s) listed.

EPCRA 304 EHS RQ:
No component(s) listed.

CERCLA RQ:
No component(s) listed.

EPCRA 313 TRI:
No component(s) listed.

RCRA Code:
No component(s) listed.

CAA 112 (r) RMP TQ:
No component(s) listed.

State Regulations.

Massachussetts:
No component(s) listed.

Minnesota:
No component(s) listed.

New Jersey:
No component(s) listed.

SECTION 15. Regulatory information. ... / >>

New York:
No component(s) listed.

Pennsylvania:
No component(s) listed.

California:
No component(s) listed.

Proposition 65:
This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None.

Substances subject to the Rotterdam Convention:
None.

Substances subject to the Stockholm Convention:
None.

Candadian WHMIS.
Information not available.

SECTION 16. Other information.

LEGEND:
- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:
- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology

SECTION 16. Other information. ... / >>

- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **72000/3**
Product name **GLA SHAMPOO**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Calzolari Don Angelo 55/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centro Antiveleni di Bergamo**
Azienda Ospedaliera Papa Giovanni XXII 800 88 33 00
Centro Antiveleni di Milano
Ospedale Niguarda Ca' Granda +39 02 6610 1029
Centro Antiveleni di Roma
CAV Policlinico "A. Gemelli", Dipartimento di Tossicologia Clinica Universita Cattolica del Sacro Cuore +39 06 305 4343
Centro Antiveleni di Roma
CAV Policlinico "Umberto I", Università di Roma +39 06 4997 8000
Centro Antiveleni di Firenze
Az. Osp. "Careggi" U.O. Tossicologia Medica, S.O.D. di Tossicologia Clinicaicologia Clinica +39 055 794 7819
Centro Antiveleni di Pavia
CAV Centro Nazionale di Informazione Tossicologica, IRCCS Fondazione Maugeri +39 03 822 4444
Centro Antiveleni di Roma
CAV "Osp. Pediatrico Bambino Gesù" Dip. Emergenza e Accettazione DEA +39 06 6859 3726
Centro Antiveleni di Foggia
Az. Osp. Univ. Foggia +39 800 183 459
Centro Antiveleni di Napoli
Az. Osp. "A. Cardarelli" +39 081 54 53 333
Centro Antiveleni di Verona
Azienda Ospedaliera Integrata Verona +39 800 011 858

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Eye irritation, category 2	H319	Causes serious eye irritation.

SECTION 2. Hazards identification ... / >>

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319 Causes serious eye irritation.

EUH208 Contains: Linalyl acetate
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
May produce an allergic reaction.

Precautionary statements:

P280 Wear eye protection / face protection.

P337+P313 If eye irritation persists: Get medical advice / attention.

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification		Conc. %	Classification (EC) 1272/2008 (CLP)
Sodium 2- (dodecanoyloxy) propane -1- sulfonate			
INDEX		11.976	**Eye Irrit. 2 H319**
EC	*700-150-3*		
CAS	*156572-81-5*		
REACH Reg.	*01-2119401252-59*		
Decyl-D glucoside			
INDEX		2.195	**Eye Dam. 1 H318**
EC	*500-220-1*		
CAS	*68515-73-1*		
REACH Reg.	*01-2119488530-36*		
C10-16 alkyl polyglucoside			
INDEX		1.395	**Eye Dam. 1 H318, Skin Irrit. 2 H315**
EC	*600-975-8*		**Skin Irrit. 2 H315: ≥ 30%, Eye Dam. 1 H318: ≥ 12%**
CAS	*110615-47-9*		
REACH Reg.	*01-2119489418-23*		
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one			
INDEX		0.279	**Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC	*915-730-3*		
CAS	*54464-57-2*		
REACH Reg.	*01-2119489989-04*		
Linalyl acetate			
INDEX		0.139	**Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC	*204-116-4*		
CAS	*115-95-7*		
REACH Reg.	*01-2119454789-19*		

SECTION 3. Composition/information on ingredients ... / >>

N-[3-(dimethylamino)propyl]-C12-18(even numbers)-alkylamide

INDEX		0.022	**Acute Tox. 3 H301, Skin Corr. 1 H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=100, Aquatic Chronic 1 H410 M=1**
EC	*932-121-8*		**LD50 Oral: 300 mg/kg**
CAS	*1147459-12-8*		
REACH Reg.	*01-2119557877-18*		

Alpha cedrene

INDEX		0.013	**Asp. Tox. 1 H304, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=10**
EC	*207-418-4*		
CAS	*469-61-4*		

CYCLOHEXANE

INDEX	*601-017-00-1*	0.001	**Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC	*203-806-2*		
CAS	*110-82-7*		
REACH Reg.	*01-2119463273-41*		

TOLUENE

INDEX	*601-021-00-3*	0.00000	**Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336**
EC	*203-625-9*		
CAS	*108-88-3*		
REACH Reg.	*01-2119471310-51*		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with

self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	Límites de exposición profesional para agentes químicos en España 2021
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

SECTION 8. Exposure controls/personal protection ... / >>

CYCLOHEXANE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	700	200			
VLEP	ITA	350	100			
WEL	GBR	350	100	1050	300	
OEL	EU	700	200			
TLV-ACGIH		344	100			

TOLUENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	192	50	384	100	SKIN
VLEP	ITA	192	50			SKIN
WEL	GBR	191	50	384	100	SKIN
OEL	EU	192	50	384	100	SKIN
TLV-ACGIH			20			

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.0028	mg/l
Normal value in marine water	0.00028	mg/l
Normal value for fresh water sediment	3.73	mg/kg
Normal value for marine water sediment	0.75	mg/kg
Normal value for water, intermittent release	0.013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0.705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Linalyl acetate

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.011	mg/l
Normal value in marine water	0.0011	mg/l
Normal value for fresh water sediment	0.609	mg/kg
Normal value for marine water sediment	0.0609	mg/kg
Normal value for water, intermittent release	0.11	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0.115	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	0,2 mg/kg/d				
Inhalation			VND	0,68 mg/m3			VND	2,75 mg/m3
Skin			VND	1,25 mg/kg/d			VND	2,5 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.0141	mg/l
Normal value in marine water	0.00141	mg/l
Normal value for fresh water sediment	0.017	mg/kg
Normal value for marine water sediment	0.0017	mg/kg
Normal value for water, intermittent release	1.41	mg/l
Normal value of STP microorganisms	1.6	mg/l

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			NPI	0,78 mg/kg/d				
Inhalation			NPI	5,9 mg/m3			NPI	11,8 mg/m3
Skin			NPI	1,7 mg/kg/d			NPI	3,3 mg/kg/d

C10-16 alkyl polyglucoside

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.176	mg/l
Normal value in marine water	0.018	mg/l
Normal value for fresh water sediment	1.516	mg/kg
Normal value for marine water sediment	0.065	mg/kg
Normal value for water, intermittent release	0.0295	mg/l
Normal value of STP microorganisms	5000	mg/l
Normal value for the food chain (secondary poisoning)	111.11	mg/kg
Normal value for the terrestrial compartment	0.654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	35,7 mg/kg/d				
Inhalation			VND	124 mg/m3			VND	420 mg/m3
Skin							VND	595000 mg/kg/d

Decyl-D glucoside

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.176	mg/l
Normal value in marine water	0.0176	mg/l
Normal value for fresh water sediment	1.516	mg/kg
Normal value for marine water sediment	0.152	mg/l
Normal value for water, intermittent release	0.27	mg/l
Normal value of STP microorganisms	560	mg/l
Normal value for the food chain (secondary poisoning)	111.11	mg/kg
Normal value for the terrestrial compartment	0.654	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	37,5 mg/kg/d			VND	420 mg/m3
Inhalation			VND	124 mg/m3				
Skin			VND	357000 mg/kg/d			VND	595000 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

SECTION 8. Exposure controls/personal protection ... / >>

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties		Value	Information
Appearance		OPAQUE FLUID	
Colour		blue - purple	
Odour		STD. REF.	
Melting point / freezing point		not available	
Initial boiling point		not available	
Flammability		not available	
Lower explosive limit		not available	
Upper explosive limit		not available	
Flash point	>	60 °C	
Auto-ignition temperature		not available	
Decomposition temperature		not available	
pH		5,20 - 6,20	
Kinematic viscosity		4.500,0000 - 7.500,0000	
Dynamic viscosity		4.500,0000 - 7.500,0000	
Solubility		not available	
Partition coefficient: n-octanol/water		not available	
Vapour pressure		not available	
Density and/or relative density		1,0331 - 1,0431	
Relative vapour density		not available	
Particle characteristics		not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

SECTION 9. Physical and chemical properties ... / >>

VOC (Directive 2010/75/EU) 0.96 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

TOLUENE
Avoid exposure to: light.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE
May react violently with: strong oxidants,liquid nitric oxide.Forms explosive mixtures with: air.
TOLUENE
Risk of explosion on contact with: fuming sulphuric acid,nitric acid,silver perchlorate,nitrogen dioxide,non-metal halogenates,acetic acid,organic nitrocompounds.May form explosive mixtures with: air.May react dangerously with: strong oxidising agents,strong acids,sulphur.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

CYCLOHEXANE
Incompatible materials: natural rubbers,neoprene,polyvinyl chloride,polyethylene.

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

CYCLOHEXANE
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

TOLUENE
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

CYCLOHEXANE
Irritating for the skin and mucous membranes, and may be absorbed by the skin; nerve damage can occur at high doses and is largely due to the cyclohexanone, its metabolite.

SECTION 11. Toxicological information ... / >>

TOLUENE
Toxic effect on the central and peripheral nervous system with encephalopathy and polyneuritis; irritating for the skin, conjunctiva, cornea and respiratory apparatus.

Interactive effects

CYCLOHEXANE
The substance may enhance the effects of agents such as tri-ortho-cresyl phosphate (TOCP).

TOLUENE
Certain drugs and other industrial products can interfere with the metabolism of the toluene.

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

CYCLOHEXANE

LD50 (Dermal):	> 2000 mg/kg Rabbit
LD50 (Oral):	> 5000 mg/kg Rat
LC50 (Inhalation vapours):	32880 mg/l/4h Rat

TOLUENE

LD50 (Dermal):	> 5000 mg/kg
LD50 (Oral):	5580 mg/kg Rat
LC50 (Inhalation vapours):	28.1 mg/l/4h Rat

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

LD50 (Dermal):	> 5000 mg/kg Rabbit
LD50 (Oral):	> 5000 mg/kg Rat

Linalyl acetate

LD50 (Dermal):	> 5000 mg/kg rabbit
LD50 (Oral):	> 9000 mg/kg rat

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LD50 (Dermal):	> 2000 mg/kg rat
LD50 (Oral):	8400 mg/kg rat

C10-16 alkyl polyglucoside

LD50 (Dermal):	> 2000 mg/kg rabbit
LD50 (Oral):	> 5000 mg/kg rat

Decyl-D glucoside

LD50 (Dermal):	> 2000 mg/kg rabbit
LD50 (Oral):	> 2000 mg/kg rat

Alpha cedrene

LD50 (Dermal):	> 2000 mg/kg
LD50 (Oral):	> 2000 mg/kg

N-[3-(dimethylamino)propyl]-C12-18(even numbers)-alkylamide

LD50 (Oral):	300 mg/kg

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

CYCLOHEXANE
Irritating to skin

TOLUENE
irritating to the skin

SECTION 11. Toxicological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
irritating to the skin

Linalyl acetate
irritante per la pelle

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
irritating to the skin

C10-16 alkyl polyglucoside
irritante per la pelle

Decyl-D glucoside
non irritante

N-[3-(dimethylamino)propyl]-C12-18(even numbers)-alkylamide
corrosivo per la pelle

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

CYCLOHEXANE
Slightly irritating to eyes

TOLUENE
irritating to eyes

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
not irritating

Linalyl acetate
irritante per gli occhi

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
irritating to eyes

C10-16 alkyl polyglucoside
irritante per gli occhi

Decyl-D glucoside
irritante per gli occhi

N-[3-(dimethylamino)propyl]-C12-18(even numbers)-alkylamide
non irritante

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
Linalyl acetate
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

CYCLOHEXANE
Not sensitizing

Skin sensitization

TOLUENE
not sensitizing

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
skin sensitizer

Linalyl acetate
sensitising

SECTION 11. Toxicological information ... / >>

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
not sensitizing

C10-16 alkyl polyglucoside
non sensibilizzante

Decyl-D glucoside
non sensibilizzante

N-[3-(dimethylamino)propyl]-C12-18(even numbers)-alkylamide
non sensibilizzante

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CYCLOHEXANE
Not mutagenic

TOLUENE
negative

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
negative

Linalyl acetate
negative

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
negative

C10-16 alkyl polyglucoside
negative

Decyl-D glucoside
negative

N-[3-(dimethylamino)propyl]-C12-18(even numbers)-alkylamide
negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

TOLUENE
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine

disruptors with human health effects under evaluation.

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

CYCLOHEXANE

LC50 - for Fish	4.53 mg/l/96h Pimephales promelas
EC50 - for Crustacea	0.9 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 4.45 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	0.925 mg/l

TOLUENE

LC50 - for Fish	5.5 mg/l/96h
EC50 - for Crustacea	3.78 mg/l/48h
Chronic NOEC for Fish	1.4 mg/l 40d
Chronic NOEC for Crustacea	0.74 mg/l 7d
Chronic NOEC for Algae / Aquatic Plants	10 mg/l 72h

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

LC50 - for Fish	1.3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1.38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2.6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Crustacea	0.044 mg/l Mortality Daphnia magna (21d)

Linalyl acetate

LC50 - for Fish	11 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	59 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	68 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	3.9 mg/l 72 h

Sodium 2- (dodecanoyloxy) propane -1- sulfonate

LC50 - for Fish	29.3 mg/l/96h Salmo gairdneri
EC50 - for Crustacea	14.08 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	46.3 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	6.25 mg/l Daphnia magna 48h
Chronic NOEC for Algae / Aquatic Plants	12.5 mg/l Desmodesmus subspicatus 72h

C10-16 alkyl polyglucoside

LC50 - for Fish	2.95 mg/l/96h
EC50 - for Algae / Aquatic Plants	12.5 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1 mg/l Danio rerio 28d
Chronic NOEC for Crustacea	1 mg/l Daphnia magna

Decyl-D glucoside

LC50 - for Fish	100.81 mg/l/96h Danio rerio
EC50 - for Crustacea	> 100 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	27.22 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	1.8 mg/l Danio rerio
Chronic NOEC for Crustacea	1.74 mg/l Daphnia magna 21d

Alpha cedrene

LC50 - for Fish	< 0.1 mg/l/96h
Chronic NOEC for Fish	< 0.01 mg/l

N-[3-(dimethylamino)propyl]-C12-18(even numbers)-alkylamide

LC50 - for Fish	0.58 mg/l/96h
EC50 - for Crustacea	0.0085 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.086 mg/l/72h
EC10 for Crustacea	0.0015 mg/l/10d
EC10 for Algae / Aquatic Plants	0.015 mg/l/72h

12.2. Persistence and degradability

SECTION 12. Ecological information ... / >>

CYCLOHEXANE
Solubility in water 0,1 - 100 mg/l
Rapidly degradable

TOLUENE
Solubility in water 100 - 1000 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
Solubility in water 2.68 mg/l
Rapidly degradable

Linalyl acetate
Solubility in water 30 mg/l
Rapidly degradable

Sodium 2- (dodecanoyloxy) propane -1- sulfonate
Rapidly degradable

C10-16 alkyl polyglucoside
Solubility in water > 200000 mg/l a 20°C
Rapidly degradable

Decyl-D glucoside
Rapidly degradable

Alpha cedrene
Degradability: information not available

N-[3-(dimethylamino)propyl]-C12-18(even numbers)-alkylamide
Rapidly degradable

12.3. Bioaccumulative potential

CYCLOHEXANE
Partition coefficient: n-octanol/water 3.44

TOLUENE
Partition coefficient: n-octanol/water 2.73
BCF 90

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number

not applicable

14.2. UN proper shipping name

not applicable

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

not applicable

14.6. Special precautions for user

not applicable

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product
Point 3 - 40
Contained substance
Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:

SECTION 15. Regulatory information ... / >>

None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1	Skin corrosion, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1	Skin sensitization, category 1
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H225	Highly flammable liquid and vapour.
H361d	Suspected of damaging the unborn child.
H301	Toxic if swallowed.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value

SECTION 16. Other information ... / >>

- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:
The following sections were modified:
02 / 03 / 11 / 12.

Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **72003/32**
Product name **GLA CONDITIONER**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Calzolari Don Angelo 55/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to

Centro Antiveleni di Bergamo
Azienda Ospedaliera Papa Giovanni XXII 800 88 33 00
Centro Antiveleni di Milano
Ospedale Niguarda Ca' Granda +39 02 6610 1029
Centro Antiveleni di Roma
CAV Policlinico "A. Gemelli", Dipartimento di Tossicologia Clinica Universita Cattolica del Sacro Cuore +39 06 305 4343
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Azienda Ospedaliera Integrata Verona +39 800 011 858

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Hazardous to the aquatic environment, chronic		

SECTION 2. Hazards identification ... / >>

toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: Linalyl acetate 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one Maleic acid May produce an allergic reaction.

Precautionary statements:

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P280	Wear protective gloves / eye protection / face protection.
P310	Immediately call a POISON CENTER / doctor.
P273	Avoid release to the environment.
P391	Collect spillage.
P264	Wash hands thoroughly after handling.

Contains: Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
cetrimonium chloride
BENTRIMONIUM METOSULPHATE

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	Conc. %	Classification (EC) 1272/2008 (CLP)
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
INDEX	3.4	**STOT RE 2 H373, Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 271-756-9		
CAS 68607-24-9		
REACH Reg. 01-2119484817-22		
2,6,10-TRIMETHYLDODECANE		
INDEX	2	**Asp. Tox. 1 H304, Aquatic Chronic 4 H413**
EC 622-542-2		
CAS 3891-98-3		
REACH Reg. 01-2119948111-47		

SECTION 3. Composition/information on ingredients ... / >>

cetrimonium chloride

INDEX		1.743	**Acute Tox. 3 H311, Acute Tox. 4 H302, Skin Corr. 1C H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC	*203-928-6*		**STA Oral: 500 mg/kg, STA Dermal: 300 mg/kg**
CAS	*112-02-7*		
REACH Reg.	*01-2119970558-23*		

BENTRIMONIUM METOSULPHATE

INDEX		1.5	**STOT RE 2 H373, Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411**
EC	*279-791-1*		
CAS	*81646-13-1*		
REACH Reg.	*01-2119949051-44*		

Maleic acid

INDEX	*607-095-00-3*	0.3	**Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1B H317**
EC	*203-742-5*		**LD50 Oral: 1030 mg/kg**
CAS	*110-16-7*		
REACH Reg.	*01-2119488705-25*		

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

INDEX		0.259	**Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC	*915-730-3*		
CAS	*54464-57-2*		
REACH Reg.	*01-2119489989-04*		

Linalyl acetate

INDEX		0.129	**Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC	*204-116-4*		
CAS	*115-95-7*		
REACH Reg.	*01-2119454789-19*		

Alpha cedrene

INDEX		0.012	**Asp. Tox. 1 H304, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=10**
EC	*207-418-4*		
CAS	*469-61-4*		

TOLUENE

INDEX	*601-021-00-3*	0.00000	**Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336**
EC	*203-625-9*		
CAS	*108-88-3*		
REACH Reg.	*01-2119471310-51*		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

SECTION 5. Firefighting measures ... / >>

UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	Límites de exposición profesional para agentes químicos en España 2021
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

TOLUENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	192	50	384	100	SKIN
VLEP	ITA	192	50			SKIN
WEL	GBR	191	50	384	100	SKIN
OEL	EU	192	50	384	100	SKIN
TLV-ACGIH			20			

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.013	mg/l
Normal value in marine water	0.0013	mg/l
Normal value for fresh water sediment	1.25	mg/kg
Normal value for marine water sediment	0.125	mg/kg
Normal value for water, intermittent release	0.014	mg/l
Normal value of STP microorganisms	430	mg/l
Normal value for the food chain (secondary poisoning)	6.7	mg/kg
Normal value for the terrestrial compartment	1	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation							VND	0,49 mg/m3
Skin							VND	1,7 mg/kg/d

cetrimonium chloride

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.00068	mg/l
Normal value in marine water	0.00006	mg/l
Normal value for fresh water sediment	8 9.27	mg/kg
Normal value for marine water sediment	0.927	mg/kg
Normal value for water, intermittent release	0.0008	mg/l
Normal value of STP microorganisms	0.4	mg/l
Normal value for the terrestrial compartment	7	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			NEA	2,83 mg/kg/d				
Inhalation			NPI	0,98 mg/m3			NPI	3,32 mg/m3
Skin			NEA	2,83 mg/kg/d			NEA	4,7 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.0028	mg/l
Normal value in marine water	0.00028	mg/l
Normal value for fresh water sediment	3.73	mg/kg
Normal value for marine water sediment	0.75	mg/kg
Normal value for water, intermittent release	0.013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0.705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Linalyl acetate

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.011	mg/l
Normal value in marine water	0.0011	mg/l
Normal value for fresh water sediment	0.609	mg/kg
Normal value for marine water sediment	0.0609	mg/kg
Normal value for water, intermittent release	0.11	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0.115	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	0,2 mg/kg/d				
Inhalation			VND	0,68 mg/m3			VND	2,75 mg/m3
Skin			VND	1,25 mg/kg/d			VND	2,5 mg/kg/d

BENTRIMONIUM METOSULPHATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.013	mg/l
Normal value in marine water	0.0013	mg/l
Normal value for fresh water sediment	1.25	mg/kg/d
Normal value for marine water sediment	0.125	mg/kg/d
Normal value of STP microorganisms	0.43	mg/l

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	NPI	NPI	NPI	NPI				
Inhalation	NPI	NPI	NPI	NPI				0,6 mg/m3
Skin	NPI	NPI	NPI	NPI				3 mg/kg bw/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

SECTION 8. Exposure controls/personal protection ... / >>

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties		Value	Information
Appearance		CREAMY	
Colour		blue - purple	
Odour		STD. REF.	
Melting point / freezing point		not available	
Initial boiling point		not available	
Flammability		not available	
Lower explosive limit		not available	
Upper explosive limit		not available	
Flash point	>	60 °C	
Auto-ignition temperature		not available	
Decomposition temperature		not available	
pH		3,50 - 4,50	
Kinematic viscosity		60.000,0000 - 100.000,0000	
Solubility		not available	
Partition coefficient: n-octanol/water		not available	
Vapour pressure		not available	
Density and/or relative density		0,9878 - 0,9978	
Relative vapour density		not available	
Particle characteristics		not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

SECTION 9. Physical and chemical properties ... / >>

VOC (Directive 2010/75/EU) 1.52 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

TOLUENE
Avoid exposure to: light.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

TOLUENE
Risk of explosion on contact with: fuming sulphuric acid,nitric acid,silver perchlorate,nitrogen dioxide,non-metal halogenates,acetic acid,organic nitrocompounds.May form explosive mixtures with: air.May react dangerously with: strong oxidising agents,strong acids,sulphur.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Maleic acid
a) tossicità acuta;
Valutazione di tossicità acuta:
Nocivo per ingestione, assorbimento attraverso la cute e inalazione
Dati sperimentali/calcolati:
DL50 ratto (orale): 708 mg/kg
DL50 coniglio (cutaneo): 1560 mg/kg
LC50 ratto (inalazione) > 0,72 mg/L

b) Corrosione cutanea/irritazione cutanea;
Valutazione dell'effetto irritante: irritante. Per contatto con la pelle si ha irritazione con eritema, edema, secchezza e screpolatura.

c) gravi danni oculari/irritazione oculare;
Valutazione dell'effetto irritante: irritante. Il contatto con gli occhi provoca irritazione; i sintomi possono includere: arrossamento, edema, dolore e lacrimazione.

d) sensibilizzazione respiratoria o cutanea;
Valutazione dell'effetto sensibilizzante: Il contatto del prodotto con la pelle (topo) provoca una sensibilizzazione (dermatite da contatto) - OECD Guideline 429.
Gli studi sull'uomo non hanno mostrato un effetto sensibilizzante (HRIPT) - Good clinical practices guidelines 21CFR part 50, 56

e) mutagenicità sulle cellule germinali;
Valutazione di mutagenicità:
I tests di mutagenicità non hanno rilevato un potenziale genotossico.
Dati sperimentali/calcolati:
test di Ames

SECTION 11. Toxicological information ... / >>

Batteri: negativo

f) cancerogenicità;
Valutazione di cancerogenicità:
La valutazione degli effetti cancerogeni non ha mostrati effetti di cancerogenicità (read across- anidride maleica) - OECD Guideline 451

g) tossicità per la riproduzione;
Valutazione di tossicità per la riproduzione: non sono stati osservati effetti sulla fertilità sui ratti alla dose massima di 55 mg/kg/day somministrata per due generazioni.

h) tossicità specifica per organi bersaglio (STOT) — esposizione singola;
Valutazione STOT singola: ND

i) tossicità specifica per organi bersaglio (STOT) — esposizione ripetuta;
Valutazione della tossicità in seguito a somministrazione ripetuta: ND.

j) pericolo in caso di aspirazione: ND

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

TOLUENE
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

TOLUENE
Toxic effect on the central and peripheral nervous system with encephalopathy and polyneuritis; irritating for the skin, conjunctiva, cornea and respiratory apparatus.

Interactive effects

TOLUENE
Certain drugs and other industrial products can interfere with the metabolism of the toluene.

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

Maleic acid

LD50 (Dermal):	2620 mg/kg
LD50 (Oral):	1030 mg/kg

TOLUENE

LD50 (Dermal):	> 5000 mg/kg
LD50 (Oral):	5580 mg/kg Rat
LC50 (Inhalation vapours):	28.1 mg/l/4h Rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral):	3190 mg/kg rat

cetrimonium chloride

LD50 (Dermal):	1600 mg/kg rabbit male/female
STA (Dermal):	300 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral):	2410 mg/kg MALE/FEMALE RAT
STA (Oral):	500 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

SECTION 11. Toxicological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
LD50 (Dermal): > 5000 mg/kg Rabbit
LD50 (Oral): > 5000 mg/kg Rat

Linalyl acetate
LD50 (Dermal): > 5000 mg/kg rabbit
LD50 (Oral): > 9000 mg/kg rat

BENTRIMONIUM METOSULPHATE
LD50 (Dermal): > 2000 mg/kg
LD50 (Oral): 3190 mg/kg rat

Alpha cedrene
LD50 (Dermal): > 2000 mg/kg
LD50 (Oral): > 2000 mg/kg

2,6,10-TRIMETHYLDODECANE
LD50 (Dermal): > 5000 mg/kg
LD50 (Oral): > 5000 mg/kg

SKIN CORROSION / IRRITATION

Causes skin irritation

TOLUENE
irritating to the skin

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
irritating to the skin

cetrimonium chloride
corrosive to skin irritant

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
irritating to the skin

Linalyl acetate
irritante per la pelle

BENTRIMONIUM METOSULPHATE
irritante per la pelle

2,6,10-TRIMETHYLDODECANE
non irritante

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

TOLUENE
irritating to eyes

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
irritating to eyes, irreversible damage

cetrimonium chloride
corrosive and irritating to the eyes

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
not irritating

Linalyl acetate
irritante per gli occhi

BENTRIMONIUM METOSULPHATE
irritante per gli occhi

SECTION 11. Toxicological information ... / >>

2,6,10-TRIMETHYLDODECANE
non irritante

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
Linalyl acetate
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
Maleic acid

Skin sensitization

TOLUENE
not sensitizing

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
not sensitizing

cetrimonium chloride
not sensitizing

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
skin sensitizer

Linalyl acetate
sensitising

BENTRIMONIUM METOSULPHATE
non sensibilizzante

2,6,10-TRIMETHYLDODECANE
non sensibilizzante

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

TOLUENE
negative

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
negative

cetrimonium chloride
negative

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
negative

Linalyl acetate
negative

BENTRIMONIUM METOSULPHATE
negative

2,6,10-TRIMETHYLDODECANE
negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

TOLUENE
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

SECTION 11. Toxicological information ... / >>

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

Maleic acid

LC50 - for Fish	75 mg/l/96h
EC50 - for Crustacea	42.81 mg/l/48h
EC50 - for Algae / Aquatic Plants	74.35 mg/l/72h
Chronic NOEC for Crustacea	10 mg/l

TOLUENE

LC50 - for Fish	5.5 mg/l/96h
EC50 - for Crustacea	3.78 mg/l/48h
Chronic NOEC for Fish	1.4 mg/l 40d
Chronic NOEC for Crustacea	0.74 mg/l 7d
Chronic NOEC for Algae / Aquatic Plants	10 mg/l 72h

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish	0.24 mg/l
Chronic NOEC for Crustacea	0.119 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish	0.21 mg/l/96h
EC50 - for Crustacea	0.012 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.155 mg/l/72h
Chronic NOEC for Crustacea	0.0068 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

LC50 - for Fish	1.3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1.38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2.6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Crustacea	0.044 mg/l Mortality Daphnia magna (21d)

Linalyl acetate

LC50 - for Fish	11 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	59 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	68 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	3.9 mg/l 72 h

SECTION 12. Ecological information ... / >>

BENTRIMONIUM METOSULPHATE	
LC50 - for Fish	3.5 mg/l/96h Danio Rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	3.4 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	0.24 mg/l Danio Rerio
Chronic NOEC for Crustacea	0.13 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	0.78 mg/l Desmodesmus subspicatus

Alpha cedrene	
LC50 - for Fish	< 0.1 mg/l/96h
Chronic NOEC for Fish	< 0.01 mg/l

12.2. Persistence and degradability

TOLUENE	
Solubility in water	100 - 1000 mg/l
Rapidly degradable	

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly degradable

cetrimonium chloride	
Solubility in water	240 mg/l
Rapidly degradable	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one	
Solubility in water	2.68 mg/l
Rapidly degradable	

Linalyl acetate	
Solubility in water	30 mg/l
Rapidly degradable	

BENTRIMONIUM METOSULPHATE	
Solubility in water	7 mg/l
Rapidly degradable	

Alpha cedrene
Degradability: information not available

12.3. Bioaccumulative potential

TOLUENE	
Partition coefficient: n-octanol/water	2.73
BCF	90

cetrimonium chloride	
Partition coefficient: n-octanol/water	3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number

not applicable

14.2. UN proper shipping name

not applicable

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

not applicable

14.6. Special precautions for user

not applicable

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EU: E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40
Contained substance
Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

SECTION 15. Regulatory information ... / >>

None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H361d	Suspected of damaging the unborn child.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods

SECTION 16. Other information ... / >>

- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

SECTION 16. Other information ... / >>

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 08 / 09 / 11 / 12 / 16.

Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **72006/3**
Product name **GLA TREATMENT**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Calzolari Don Angelo 55/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centro Antiveleni di Bergamo**
Azienda Ospedaliera Papa Giovanni XXII 800 88 33 00
Centro Antiveleni di Milano
Ospedale Niguarda Ca' Granda +39 02 6610 1029
Centro Antiveleni di Roma
CAV Policlinico "A. Gemelli", Dipartimento di Tossicologia Clinica Universita Cattolica del Sacro Cuore +39 06 305 4343
Centro Antiveleni di Roma
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Centro Antiveleni di Verona
Azienda Ospedaliera Integrata Verona +39 800 011 858

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Hazardous to the aquatic environment, chronic		

SECTION 2. Hazards identification ... / >>

toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: Linalyl acetate 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one Maleic acid May produce an allergic reaction.

Precautionary statements:

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P280	Wear protective gloves / eye protection / face protection.
P310	Immediately call a POISON CENTER / doctor.
P273	Avoid release to the environment.
P391	Collect spillage.
P264	Wash hands thoroughly after handling.

Contains: Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
BENTRIMONIUM METOSULPHATE
cetrimonium chloride

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	Conc. %	Classification (EC) 1272/2008 (CLP)
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
INDEX	3.4	**STOT RE 2 H373, Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 271-756-9		
CAS 68607-24-9		
REACH Reg. 01-2119484817-22		
BENTRIMONIUM METOSULPHATE		
INDEX	1.747	**STOT RE 2 H373, Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411**
EC 279-791-1		
CAS 81646-13-1		

SECTION 3. Composition/information on ingredients ... / >>

REACH Reg. *01-2119949051-44*
cetrimonium chloride
INDEX 1.743 **Acute Tox. 3 H311, Acute Tox. 4 H302, Skin Corr. 1C H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC *203-928-6* **STA Oral: 500 mg/kg, STA Dermal: 300 mg/kg**
CAS *112-02-7*
REACH Reg. *01-2119970558-23*
Quaternium 87
INDEX 1.047 **Skin Irrit. 2 H315**
EC *296-019-9*
CAS *92201-88-2*
Maleic acid
INDEX *607-095-00-3* 0.5 **Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1B H317**
EC *203-742-5* **LD50 Oral: 1030 mg/kg**
CAS *110-16-7*
REACH Reg. *01-2119488705-25*
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
INDEX 0.279 **Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC *915-730-3*
CAS *54464-57-2*
REACH Reg. *01-2119489989-04*
N-[3-(dimethylamino)propyl]stearamide
INDEX 0.174 **Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411**
EC *231-609-1*
CAS *7651-02-7*
REACH Reg. *01-2119979089-19*
Linalyl acetate
INDEX 0.139 **Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC *204-116-4*
CAS *115-95-7*
REACH Reg. *01-2119454789-19*
Alpha cedrene
INDEX 0.013 **Asp. Tox. 1 H304, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=10**
EC *207-418-4*
CAS *469-61-4*
TOLUENE
INDEX *601-021-00-3* 0.00000 **Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336**
EC *203-625-9*
CAS *108-88-3*
REACH Reg. *01-2119471310-51*

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	Límites de exposición profesional para agentes químicos en España 2021
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

TOLUENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	192	50	384	100	SKIN
VLEP	ITA	192	50			SKIN
WEL	GBR	191	50	384	100	SKIN
OEL	EU	192	50	384	100	SKIN
TLV-ACGIH			20			

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.013	mg/l
Normal value in marine water	0.0013	mg/l
Normal value for fresh water sediment	1.25	mg/kg
Normal value for marine water sediment	0.125	mg/kg
Normal value for water, intermittent release	0.014	mg/l
Normal value of STP microorganisms	430	mg/l
Normal value for the food chain (secondary poisoning)	6.7	mg/kg
Normal value for the terrestrial compartment	1	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation							VND	0,49 mg/m3
Skin							VND	1,7 mg/kg/d

cetrimonium chloride

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.00068	mg/l
Normal value in marine water	0.00006	mg/l
Normal value for fresh water sediment	8 9.27	mg/kg
Normal value for marine water sediment	0.927	mg/kg
Normal value for water, intermittent release	0.0008	mg/l
Normal value of STP microorganisms	0.4	mg/l
Normal value for the terrestrial compartment	7	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			NEA	2,83 mg/kg/d				
Inhalation			NPI	0,98 mg/m3			NPI	3,32 mg/m3
Skin			NEA	2,83 mg/kg/d			NEA	4,7 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.0028	mg/l
Normal value in marine water	0.00028	mg/l
Normal value for fresh water sediment	3.73	mg/kg
Normal value for marine water sediment	0.75	mg/kg
Normal value for water, intermittent release	0.013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0.705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Linalyl acetate

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.011	mg/l
Normal value in marine water	0.0011	mg/l
Normal value for fresh water sediment	0.609	mg/kg
Normal value for marine water sediment	0.0609	mg/kg
Normal value for water, intermittent release	0.11	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0.115	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	0,2 mg/kg/d				
Inhalation			VND	0,68 mg/m3			VND	2,75 mg/m3
Skin			VND	1,25 mg/kg/d			VND	2,5 mg/kg/d

BENTRIMONIUM METOSULPHATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.013	mg/l
Normal value in marine water	0.0013	mg/l
Normal value for fresh water sediment	1.25	mg/kg/d
Normal value for marine water sediment	0.125	mg/kg/d
Normal value of STP microorganisms	0.43	mg/l

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	NPI	NPI	NPI	NPI				
Inhalation	NPI	NPI	NPI	NPI				0,6 mg/m3
Skin	NPI	NPI	NPI	NPI				3 mg/kg bw/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

SECTION 8. Exposure controls/personal protection ... / >>

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties		Value	Information
Appearance		CREAM	
Colour		white	
Odour		STD. REF.	
Melting point / freezing point		not available	
Initial boiling point		not available	
Flammability		not available	
Lower explosive limit		not available	
Upper explosive limit		not available	
Flash point	>	60 °C	
Auto-ignition temperature		not available	
Decomposition temperature		not available	
pH		3,50 - 4,50	
Kinematic viscosity		80.000,0000 - 150.000,0000	
Dynamic viscosity		50.000,0000 - 80.000,0000	
Solubility		not available	
Partition coefficient: n-octanol/water		not available	
Vapour pressure		not available	
Density and/or relative density		0,9954 - 1,0054	
Relative vapour density		not available	
Particle characteristics		not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

SECTION 9. Physical and chemical properties ... / >>

VOC (Directive 2010/75/EU) 1.56 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

TOLUENE
Avoid exposure to: light.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

TOLUENE
Risk of explosion on contact with: fuming sulphuric acid,nitric acid,silver perchlorate,nitrogen dioxide,non-metal halogenates,acetic acid,organic nitrocompounds.May form explosive mixtures with: air.May react dangerously with: strong oxidising agents,strong acids,sulphur.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Maleic acid
a) tossicità acuta;
Valutazione di tossicità acuta:
Nocivo per ingestione, assorbimento attraverso la cute e inalazione
Dati sperimentali/calcolati:
DL50 ratto (orale): 708 mg/kg
DL50 coniglio (cutaneo): 1560 mg/kg
LC50 ratto (inalazione) > 0,72 mg/L

b) Corrosione cutanea/irritazione cutanea;
Valutazione dell'effetto irritante: irritante. Per contatto con la pelle si ha irritazione con eritema, edema, secchezza e screpolatura.

c) gravi danni oculari/irritazione oculare;
Valutazione dell'effetto irritante: irritante. Il contatto con gli occhi provoca irritazione; i sintomi possono includere: arrossamento, edema, dolore e lacrimazione.

d) sensibilizzazione respiratoria o cutanea;
Valutazione dell'effetto sensibilizzante: Il contatto del prodotto con la pelle (topo) provoca una sensibilizzazione (dermatite da contatto) - OECD Guideline 429.
Gli studi sull'uomo non hanno mostrato un effetto sensibilizzante (HRIPT) - Good clinical practices guidelines 21CFR part 50, 56

e) mutagenicità sulle cellule germinali;
Valutazione di mutagenicità:
I tests di mutagenicità non hanno rilevato un potenziale genotossico.
Dati sperimentali/calcolati:
test di Ames

SECTION 11. Toxicological information ... / >>

Batteri: negativo

f) cancerogenicità;
Valutazione di cancerogenicità:
La valutazione degli effetti cancerogeni non ha mostrati effetti di cancerogenicità (read across- anidride maleica) - OECD Guideline 451

g) tossicità per la riproduzione;
Valutazione di tossicità per la riproduzione: non sono stati osservati effetti sulla fertilità sui ratti alla dose massima di 55 mg/kg/day somministrata per due generazioni.

h) tossicità specifica per organi bersaglio (STOT) — esposizione singola;
Valutazione STOT singola: ND

i) tossicità specifica per organi bersaglio (STOT) — esposizione ripetuta;
Valutazione della tossicità in seguito a somministrazione ripetuta: ND.

j) pericolo in caso di aspirazione: ND

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

TOLUENE
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

TOLUENE
Toxic effect on the central and peripheral nervous system with encephalopathy and polyneuritis; irritating for the skin, conjunctiva, cornea and respiratory apparatus.

Interactive effects

TOLUENE
Certain drugs and other industrial products can interfere with the metabolism of the toluene.

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

Maleic acid

LD50 (Dermal):	2620 mg/kg
LD50 (Oral):	1030 mg/kg

TOLUENE

LD50 (Dermal):	> 5000 mg/kg
LD50 (Oral):	5580 mg/kg Rat
LC50 (Inhalation vapours):	28.1 mg/l/4h Rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral):	3190 mg/kg rat

cetrimonium chloride

LD50 (Dermal):	1600 mg/kg rabbit male/female
STA (Dermal):	300 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral):	2410 mg/kg MALE/FEMALE RAT
STA (Oral):	500 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

SECTION 11. Toxicological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
LD50 (Dermal): > 5000 mg/kg Rabbit
LD50 (Oral): > 5000 mg/kg Rat

Linalyl acetate
LD50 (Dermal): > 5000 mg/kg rabbit
LD50 (Oral): > 9000 mg/kg rat

BENTRIMONIUM METOSULPHATE
LD50 (Dermal): > 2000 mg/kg
LD50 (Oral): 3190 mg/kg rat

Alpha cedrene
LD50 (Dermal): > 2000 mg/kg
LD50 (Oral): > 2000 mg/kg

Quaternium 87
LD50 (Oral): > 2000 mg/kg

N-[3-(dimethylamino)propyl]stearamide
LD50 (Dermal): > 2000 mg/kg
LD50 (Oral): > 2000 mg/kg

SKIN CORROSION / IRRITATION

Causes skin irritation

TOLUENE
irritating to the skin

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
irritating to the skin

cetrimonium chloride
corrosive to skin irritant

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
irritating to the skin

Linalyl acetate
irritante per la pelle

BENTRIMONIUM METOSULPHATE
irritante per la pelle

Quaternium 87
non irritante

N-[3-(dimethylamino)propyl]stearamide
non irritante

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

TOLUENE
irritating to eyes

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
irritating to eyes, irreversible damage

cetrimonium chloride
corrosive and irritating to the eyes

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
not irritating

SECTION 11. Toxicological information ... / >>

Linalyl acetate
irritante per gli occhi

BENTRIMONIUM METOSULPHATE
irritante per gli occhi

Quaternium 87
irritante per gli occhi

N-[3-(dimethylamino)propyl]stearamide
irritante per gli occhi

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
Linalyl acetate
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
Maleic acid

Skin sensitization

TOLUENE
not sensitizing

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
not sensitizing

cetrimonium chloride
not sensitizing

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
skin sensitizer

Linalyl acetate
sensitising

BENTRIMONIUM METOSULPHATE
non sensibilizzante

Quaternium 87
non sensibilizzante

N-[3-(dimethylamino)propyl]stearamide
non sensibilizzante

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

TOLUENE
negative

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
negative

cetrimonium chloride
negative

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
negative

Linalyl acetate
negative

BENTRIMONIUM METOSULPHATE
negative

SECTION 11. Toxicological information ... / >>

Quaternium 87
negative

N-[3-(dimethylamino)propyl]stearamide
negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

TOLUENE
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

Maleic acid

LC50 - for Fish	75 mg/l/96h
EC50 - for Crustacea	42.81 mg/l/48h
EC50 - for Algae / Aquatic Plants	74.35 mg/l/72h
Chronic NOEC for Crustacea	10 mg/l

TOLUENE

LC50 - for Fish	5.5 mg/l/96h
EC50 - for Crustacea	3.78 mg/l/48h
Chronic NOEC for Fish	1.4 mg/l 40d
Chronic NOEC for Crustacea	0.74 mg/l 7d
Chronic NOEC for Algae / Aquatic Plants	10 mg/l 72h

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish	0.24 mg/l
Chronic NOEC for Crustacea	0.119 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish	0.21 mg/l/96h
EC50 - for Crustacea	0.012 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.155 mg/l/72h

SECTION 12. Ecological information ... / >>

Chronic NOEC for Crustacea	0.0068 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

LC50 - for Fish	1.3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1.38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2.6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Crustacea	0.044 mg/l Mortality Daphnia magna (21d)

Linalyl acetate

LC50 - for Fish	11 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	59 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	68 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	3.9 mg/l 72 h

BENTRIMONIUM METOSULPHATE

LC50 - for Fish	3.5 mg/l/96h Danio Rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	3.4 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	0.24 mg/l Danio Rerio
Chronic NOEC for Crustacea	0.13 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	0.78 mg/l Desmodesmus subspicatus

Alpha cedrene

LC50 - for Fish	< 0.1 mg/l/96h
Chronic NOEC for Fish	< 0.01 mg/l

N-[3-(dimethylamino)propyl]stearamide

LC50 - for Fish	< 1 mg/l/96h
EC50 - for Crustacea	0.25 mg/l/48h
Chronic NOEC for Fish	0.1 mg/l

12.2. Persistence and degradability

TOLUENE
Solubility in water 100 - 1000 mg/l
Rapidly degradable

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly degradable

cetrimonium chloride
Solubility in water 240 mg/l
Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
Solubility in water 2.68 mg/l
Rapidly degradable

Linalyl acetate
Solubility in water 30 mg/l
Rapidly degradable

BENTRIMONIUM METOSULPHATE
Solubility in water 7 mg/l
Rapidly degradable

Alpha cedrene
Degradability: information not available

N-[3-(dimethylamino)propyl]stearamide
Rapidly degradable

12.3. Bioaccumulative potential

SECTION 12. Ecological information ... / >>

TOLUENE
Partition coefficient: n-octanol/water 2.73
BCF 90

cetrimonium chloride
Partition coefficient: n-octanol/water 3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; BENTRIMONIUM METOSULPHATE)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; BENTRIMONIUM METOSULPHATE)
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; BENTRIMONIUM METOSULPHATE)

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

ADR / RID:	Class: 9	Label: 9
IMDG:	Class: 9	Label: 9
IATA:	Class: 9	Label: 9

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID:	Environmentally Hazardous
IMDG:	Marine Pollutant
IATA:	Environmentally Hazardous

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90 Special provision: -	Limited Quantities: 5 L	Tunnel restriction code: (-)
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Passengers:	Maximum quantity: 450 L	Packaging instructions: 964
	Special provision:	A97, A158, A197, A215	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EU: E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product
Point 3 - 40
Contained substance
Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

SECTION 15. Regulatory information ... / >>

None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H225	Highly flammable liquid and vapour.
H361d	Suspected of damaging the unborn child.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP

SECTION 16. Other information ... / >>

- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

SECTION 16. Other information ... / >>

The following sections were modified:
03.

Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **72008/3**
Product name **GLA LEAVE HON**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Calzolari Don Angelo 55/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centro Antiveleni di Bergamo**
Azienda Ospedaliera Papa Giovanni XXII 800 88 33 00
Centro Antiveleni di Milano
Ospedale Niguarda Ca' Granda +39 02 6610 1029
Centro Antiveleni di Roma
CAV Policlinico "A. Gemelli", Dipartimento di Tossicologia Clinica Universita Cattolica del Sacro Cuore +39 06 305 4343
Centro Antiveleni di Roma
CAV Policlinico "Umberto I", Università di Roma +39 06 4997 8000
Centro Antiveleni di Firenze
Az. Osp. "Careggi" U.O. Tossicologia Medica, S.O.D. di Tossicologia Clinicaicologia Clinica +39 055 794 7819
Centro Antiveleni di Pavia
CAV Centro Nazionale di Informazione Tossicologica, IRCCS Fondazione Maugeri +39 03 822 4444
Centro Antiveleni di Roma
CAV "Osp. Pediatrico Bambino Gesù" Dip. Emergenza e Accettazione DEA +39 06 6859 3726
Centro Antiveleni di Foggia
Az. Osp. Univ. Foggia +39 800 183 459
Centro Antiveleni di Napoli
Az. Osp. "A. Cardarelli" +39 081 54 53 333
Centro Antiveleni di Verona
Azienda Ospedaliera Integrata Verona +39 800 011 858

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

SECTION 2. Hazards identification ... / >>

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal words: --

Hazard statements:
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:
P273 Avoid release to the environment.

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification		Conc. %	Classification (EC) 1272/2008 (CLP)
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
INDEX		0.893	**STOT RE 2 H373, Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC	*271-756-9*		
CAS	*68607-24-9*		
REACH Reg.	*01-2119484817-22*		
cetrimonium chloride			
INDEX		0.423	**Acute Tox. 3 H311, Acute Tox. 4 H302, Skin Corr. 1C H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC	*203-928-6*		**STA Oral: 500 mg/kg, STA Dermal: 300 mg/kg**
CAS	*112-02-7*		
REACH Reg.	*01-2119970558-23*		
TOLUENE			
INDEX	*601-021-00-3*	0.00000	**Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336**
EC	*203-625-9*		
CAS	*108-88-3*		
REACH Reg.	*01-2119471310-51*		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

Not specifically necessary. Observance of good industrial hygiene is recommended.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use breathing equipment if fumes or powders are released into the air. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Confine using earth or inert material. Collect as much material as possible and eliminate the rest using jets of water. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

7.2. Conditions for safe storage, including any incompatibilities

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	Límites de exposición profesional para agentes químicos en España 2021
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

TOLUENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	192	50	384	100	SKIN
VLEP	ITA	192	50			SKIN
WEL	GBR	191	50	384	100	SKIN
OEL	EU	192	50	384	100	SKIN
TLV-ACGIH			20			

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.013	mg/l
Normal value in marine water	0.0013	mg/l
Normal value for fresh water sediment	1.25	mg/kg
Normal value for marine water sediment	0.125	mg/kg
Normal value for water, intermittent release	0.014	mg/l
Normal value of STP microorganisms	430	mg/l
Normal value for the food chain (secondary poisoning)	6.7	mg/kg
Normal value for the terrestrial compartment	1	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation							VND	0,49 mg/m3
Skin							VND	1,7 mg/kg/d

cetrimonium chloride

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.00068	mg/l
Normal value in marine water	0.00006	mg/l
Normal value for fresh water sediment	8 9.27	mg/kg
Normal value for marine water sediment	0.927	mg/kg
Normal value for water, intermittent release	0.0008	mg/l
Normal value of STP microorganisms	0.4	mg/l
Normal value for the terrestrial compartment	7	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			NEA	2,83 mg/kg/d				
Inhalation			NPI	0,98 mg/m3			NPI	3,32 mg/m3
Skin			NEA	2,83 mg/kg/d			NEA	4,7 mg/kg/d

Legend:

SECTION 8. Exposure controls/personal protection ... / >>

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
HAND PROTECTION
Protect hands with category III work gloves.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties		Value	Information
Appearance		DA CREMA FLUIDA A LEGGERMENTE DISOMOGENA	
Colour		FROM WHITE TO LIGHT YELLOW	
Odour		STD. REF.	
Melting point / freezing point		not available	
Initial boiling point		not available	
Flammability		not available	
Lower explosive limit		not available	
Upper explosive limit		not available	
Flash point	>	60 °C	
Auto-ignition temperature		not available	
Decomposition temperature		not available	
pH		3,60 - 4,60	
Kinematic viscosity		1.600,0000 - 3.000,0000	
Dynamic viscosity		1.600,0000 - 3.000,0000	
Solubility		not available	
Partition coefficient: n-octanol/water		not available	
Vapour pressure		not available	
Density and/or relative density		0,9942 - 1,0042	
Relative vapour density		not available	
Particle characteristics		not applicable	

9.2. Other information

SECTION 9. Physical and chemical properties ... / >>

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU) 0.94 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

TOLUENE
Avoid exposure to: light.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

TOLUENE
Risk of explosion on contact with: fuming sulphuric acid,nitric acid,silver perchlorate,nitrogen dioxide,non-metal halogenates,acetic acid,organic nitrocompounds.May form explosive mixtures with: air.May react dangerously with: strong oxidising agents,strong acids,sulphur.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

TOLUENE
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

TOLUENE
Toxic effect on the central and peripheral nervous system with encephalopathy and polyneuritis; irritating for the skin, conjunctiva, cornea and respiratory apparatus.

Interactive effects

SECTION 11. Toxicological information ... / >>

TOLUENE
Certain drugs and other industrial products can interfere with the metabolism of the toluene.

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	>2000 mg/kg

TOLUENE

LD50 (Dermal):	> 5000 mg/kg
LD50 (Oral):	5580 mg/kg Rat
LC50 (Inhalation vapours):	28.1 mg/l/4h Rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral):	3190 mg/kg rat

cetrimonium chloride

LD50 (Dermal):	1600 mg/kg rabbit male/female
STA (Dermal):	300 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral):	2410 mg/kg MALE/FEMALE RAT
STA (Oral):	500 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

TOLUENE
irritating to the skin

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
irritating to the skin

cetrimonium chloride
corrosive to skin irritant

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

TOLUENE
irritating to eyes

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
irritating to eyes, irreversible damage

cetrimonium chloride
corrosive and irritating to the eyes

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

Skin sensitization

TOLUENE
not sensitizing

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
not sensitizing

cetrimonium chloride
not sensitizing

GERM CELL MUTAGENICITY

SECTION 11. Toxicological information ... / >>

Does not meet the classification criteria for this hazard class

TOLUENE
negative

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
negative

cetrimonium chloride
negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

TOLUENE
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

TOLUENE

LC50 - for Fish	5.5 mg/l/96h
EC50 - for Crustacea	3.78 mg/l/48h
Chronic NOEC for Fish	1.4 mg/l 40d
Chronic NOEC for Crustacea	0.74 mg/l 7d
Chronic NOEC for Algae / Aquatic Plants	10 mg/l 72h

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish	0.24 mg/l
Chronic NOEC for Crustacea	0.119 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish	0.21 mg/l/96h
EC50 - for Crustacea	0.012 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.155 mg/l/72h
Chronic NOEC for Crustacea	0.0068 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

SECTION 12. Ecological information ... / >>

12.2. Persistence and degradability

TOLUENE
Solubility in water 100 - 1000 mg/l
Rapidly degradable

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly degradable

cetrimonium chloride
Solubility in water 240 mg/l
Rapidly degradable

12.3. Bioaccumulative potential

TOLUENE
Partition coefficient: n-octanol/water 2.73
BCF 90

cetrimonium chloride
Partition coefficient: n-octanol/water 3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number

not applicable

14.2. UN proper shipping name

not applicable

SECTION 14. Transport information ... / >>

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

not applicable

14.6. Special precautions for user

not applicable

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product
Point 3 - 40
Contained substance
Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Information not available

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4

SECTION 16. Other information ... / >>

Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H361d	Suspected of damaging the unborn child.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)

SECTION 16. Other information ... / >>

13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:
The following sections were modified:
02 / 03 / 04 / 06 / 07 / 08 / 11 / 12 / 13 / 14 / 16.

Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **72018/31**
Product name **GLA INSTANT BLEACHED RECOVERY**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Calzolari Don Angelo 55/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97
e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Centro Antiveleni di Bergamo**
Azienda Ospedaliera Papa Giovanni XXII 800 88 33 00
Centro Antiveleni di Milano
Ospedale Niguarda Ca' Granda +39 02 6610 1029
Centro Antiveleni di Roma
CAV Policlinico "A. Gemelli", Dipartimento di Tossicologia Clinica Universita Cattolica del Sacro Cuore +39 06 305 4343
Centro Antiveleni di Roma
CAV Policlinico "Umberto I", Università di Roma +39 06 4997 8000
Centro Antiveleni di Firenze
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Centro Antiveleni di Pavia
CAV Centro Nazionale di Informazione Tossicologica, IRCCS Fondazione Maugeri +39 03 822 4444
Centro Antiveleni di Roma
CAV "Osp. Pediatrico Bambino Gesù" Dip. Emergenza e Accettazione DEA +39 06 6859 3726
Centro Antiveleni di Foggia
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Az. Osp. "A. Cardarelli" +39 081 54 53 333
Centro Antiveleni di Verona
Azienda Ospedaliera Integrata Verona +39 800 011 858

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Hazardous to the aquatic environment, chronic		

SECTION 2. Hazards identification ... / >>

toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: Maleic acid 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one May produce an allergic reaction.

Precautionary statements:

P273	Avoid release to the environment.
P391	Collect spillage.
P280	Wear protective gloves / eye protection / face protection.
P337+P313	If eye irritation persists: Get medical advice / attention.
P264	Wash hands thoroughly after handling.

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification		Conc. %	Classification (EC) 1272/2008 (CLP)
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides			
INDEX		1.275	**STOT RE 2 H373, Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC	*271-756-9*		
CAS	*68607-24-9*		
REACH Reg.	*01-2119484817-22*		
cetrimonium chloride			
INDEX		1.245	**Acute Tox. 3 H311, Acute Tox. 4 H302, Skin Corr. 1C H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC	*203-928-6*		**STA Oral: 500 mg/kg, STA Dermal: 300 mg/kg**
CAS	*112-02-7*		
REACH Reg.	*01-2119970558-23*		
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one			
INDEX		0.159	**Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC	*915-730-3*		
CAS	*54464-57-2*		
REACH Reg.	*01-2119489989-04*		

SECTION 3. Composition/information on ingredients ... / >>

Maleic acid

INDEX	*607-095-00-3*	0.15	**Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1B H317**
EC	*203-742-5*		**LD50 Oral: 1030 mg/kg**
CAS	*110-16-7*		
REACH Reg.	*01-2119488705-25*		

TOLUENE

INDEX	*601-021-00-3*	0.00000	**Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336**
EC	*203-625-9*		
CAS	*108-88-3*		
REACH Reg.	*01-2119471310-51*		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures ... / >>

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	Límites de exposición profesional para agentes químicos en España 2021
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

TOLUENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	192	50	384	100	SKIN
VLEP	ITA	192	50			SKIN
WEL	GBR	191	50	384	100	SKIN
OEL	EU	192	50	384	100	SKIN
TLV-ACGIH			20			

SECTION 8. Exposure controls/personal protection ... / >>

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.013	mg/l
Normal value in marine water	0.0013	mg/l
Normal value for fresh water sediment	1.25	mg/kg
Normal value for marine water sediment	0.125	mg/kg
Normal value for water, intermittent release	0.014	mg/l
Normal value of STP microorganisms	430	mg/l
Normal value for the food chain (secondary poisoning)	6.7	mg/kg
Normal value for the terrestrial compartment	1	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation							VND	0,49 mg/m3
Skin							VND	1,7 mg/kg/d

cetrimonium chloride

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.00068	mg/l
Normal value in marine water	0.00006	mg/l
	8	
Normal value for fresh water sediment	9.27	mg/kg
Normal value for marine water sediment	0.927	mg/kg
Normal value for water, intermittent release	0.0008	mg/l
Normal value of STP microorganisms	0.4	mg/l
Normal value for the terrestrial compartment	7	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			NEA	2,83 mg/kg/d				
Inhalation			NPI	0,98 mg/m3			NPI	3,32 mg/m3
Skin			NEA	2,83 mg/kg/d			NEA	4,7 mg/kg/d

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.0028	mg/l
Normal value in marine water	0.00028	mg/l
Normal value for fresh water sediment	3.73	mg/kg
Normal value for marine water sediment	0.75	mg/kg
Normal value for water, intermittent release	0.013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0.705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

SECTION 8. Exposure controls/personal protection ... / >>

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.
Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties		Value	Information
Appearance		FLUIDY CREAM	
Colour		white	
Odour		STD. REF.	
Melting point / freezing point		not available	
Initial boiling point		not available	
Flammability		not available	
Lower explosive limit		not available	
Upper explosive limit		not available	
Flash point	>	60 °C	
Auto-ignition temperature		not available	
Decomposition temperature		not available	
pH		5,00 - 6,00	
Kinematic viscosity		600,0000 - 1.200,0000	
Solubility		not available	
Partition coefficient: n-octanol/water		not available	
Vapour pressure		not available	
Density and/or relative density		1,0016 - 1,0116	
Relative vapour density		not available	
Particle characteristics		not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

SECTION 9. Physical and chemical properties ... / >>

VOC (Directive 2010/75/EU) 5.99 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

TOLUENE
Avoid exposure to: light.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

TOLUENE
Risk of explosion on contact with: fuming sulphuric acid,nitric acid,silver perchlorate,nitrogen dioxide,non-metal halogenates,acetic acid,organic nitrocompounds.May form explosive mixtures with: air.May react dangerously with: strong oxidising agents,strong acids,sulphur.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Maleic acid
a) tossicità acuta;
Valutazione di tossicità acuta:
Nocivo per ingestione, assorbimento attraverso la cute e inalazione
Dati sperimentali/calcolati:
DL50 ratto (orale): 708 mg/kg
DL50 coniglio (cutaneo): 1560 mg/kg
LC50 ratto (inalazione) > 0,72 mg/L

b) Corrosione cutanea/irritazione cutanea;
Valutazione dell'effetto irritante: irritante. Per contatto con la pelle si ha irritazione con eritema, edema, secchezza e screpolatura.

c) gravi danni oculari/irritazione oculare;
Valutazione dell'effetto irritante: irritante. Il contatto con gli occhi provoca irritazione; i sintomi possono includere: arrossamento, edema, dolore e lacrimazione.

d) sensibilizzazione respiratoria o cutanea;
Valutazione dell'effetto sensibilizzante: Il contatto del prodotto con la pelle (topo) provoca una sensibilizzazione (dermatite da contatto) - OECD Guideline 429.
Gli studi sull'uomo non hanno mostrato un effetto sensibilizzante (HRIPT) - Good clinical practices guidelines 21CFR part 50, 56

e) mutagenicità sulle cellule germinali;
Valutazione di mutagenicità:
I tests di mutagenicità non hanno rilevato un potenziale genotossico.
Dati sperimentali/calcolati:
test di Ames

SECTION 11. Toxicological information ... / >>

Batteri: negativo

f) cancerogenicità;
Valutazione di cancerogenicità:
La valutazione degli effetti cancerogeni non ha mostrati effetti di cancerogenicità (read across- anidride maleica) - OECD Guideline 451

g) tossicità per la riproduzione;
Valutazione di tossicità per la riproduzione: non sono stati osservati effetti sulla fertilità sui ratti alla dose massima di 55 mg/kg/day somministrata per due generazioni.

h) tossicità specifica per organi bersaglio (STOT) — esposizione singola;
Valutazione STOT singola: ND

i) tossicità specifica per organi bersaglio (STOT) — esposizione ripetuta;
Valutazione della tossicità in seguito a somministrazione ripetuta: ND.

j) pericolo in caso di aspirazione: ND

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

TOLUENE
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

TOLUENE
Toxic effect on the central and peripheral nervous system with encephalopathy and polyneuritis; irritating for the skin, conjunctiva, cornea and respiratory apparatus.

Interactive effects

TOLUENE
Certain drugs and other industrial products can interfere with the metabolism of the toluene.

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

Maleic acid

LD50 (Dermal):	2620 mg/kg
LD50 (Oral):	1030 mg/kg

TOLUENE

LD50 (Dermal):	> 5000 mg/kg
LD50 (Oral):	5580 mg/kg Rat
LC50 (Inhalation vapours):	28.1 mg/l/4h Rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral):	3190 mg/kg rat

cetrimonium chloride

LD50 (Dermal):	1600 mg/kg rabbit male/female
STA (Dermal):	300 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral):	2410 mg/kg MALE/FEMALE RAT
STA (Oral):	500 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

SECTION 11. Toxicological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
LD50 (Dermal): > 5000 mg/kg Rabbit
LD50 (Oral): > 5000 mg/kg Rat

SKIN CORROSION / IRRITATION

Causes skin irritation

TOLUENE
irritating to the skin

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
irritating to the skin

cetrimonium chloride
corrosive to skin irritant

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
irritating to the skin

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

TOLUENE
irritating to eyes

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
irritating to eyes, irreversible damage

cetrimonium chloride
corrosive and irritating to the eyes

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
not irritating

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
Maleic acid
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

Skin sensitization

TOLUENE
not sensitizing

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
not sensitizing

cetrimonium chloride
not sensitizing

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
skin sensitizer

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

TOLUENE
negative

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
negative

SECTION 11. Toxicological information ... / >>

cetrimonium chloride
negative

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

TOLUENE
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

Maleic acid

LC50 - for Fish	75 mg/l/96h
EC50 - for Crustacea	42.81 mg/l/48h
EC50 - for Algae / Aquatic Plants	74.35 mg/l/72h
Chronic NOEC for Crustacea	10 mg/l

TOLUENE

LC50 - for Fish	5.5 mg/l/96h
EC50 - for Crustacea	3.78 mg/l/48h
Chronic NOEC for Fish	1.4 mg/l 40d
Chronic NOEC for Crustacea	0.74 mg/l 7d
Chronic NOEC for Algae / Aquatic Plants	10 mg/l 72h

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish	0.24 mg/l
Chronic NOEC for Crustacea	0.119 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish	0.21 mg/l/96h
EC50 - for Crustacea	0.012 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.155 mg/l/72h

SECTION 12. Ecological information ... / >>

Chronic NOEC for Crustacea	0.0068 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

LC50 - for Fish	1.3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1.38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2.6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Crustacea	0.044 mg/l Mortality Daphnia magna (21d)

12.2. Persistence and degradability

TOLUENE

Solubility in water	100 - 1000 mg/l

Rapidly degradable

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly degradable

cetrimonium chloride

Solubility in water	240 mg/l

Rapidly degradable

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

Solubility in water	2.68 mg/l

Rapidly degradable

12.3. Bioaccumulative potential

TOLUENE

Partition coefficient: n-octanol/water	2.73
BCF	90

cetrimonium chloride

Partition coefficient: n-octanol/water	3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; cetrimonium chloride)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; cetrimonium chloride)
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; cetrimonium chloride)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9

IMDG: Class: 9 Label: 9

IATA: Class: 9 Label: 9

14.4. Packing group

ADR / RID, IMDG, IATA: III

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: Environmentally Hazardous

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90 Special provision: -	Limited Quantities: 5 L	Tunnel restriction code: (-)
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Passengers:	Maximum quantity: 450 L	Packaging instructions: 964
	Special provision:	A97, A158, A197, A215	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EU: E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3 - 40
Contained substance
Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H225	Highly flammable liquid and vapour.
H361d	Suspected of damaging the unborn child.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

SECTION 16. Other information ... / >>

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)

SECTION 16. Other information ... / >>

- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:
The following sections were modified:
03.

Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: **72004/31**
Product name **GLA CONDITIONER PROF**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use **Cosmetic bulk product - professional/industrial use**

1.3. Details of the supplier of the safety data sheet

Name **Davines S.p.A.**
Full address **Via Calzolari Don Angelo 55/A**
District and Country **43126 Parma (PR)**
Italia
Tel. +39 0521 96 56 11
Fax +39 0521 29 25 97

e-mail address of the competent person responsible for the Safety Data Sheet **sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to

Centro Antiveleni di Bergamo
Azienda Ospedaliera Papa Giovanni XXII 800 88 33 00
Centro Antiveleni di Milano
Ospedale Niguarda Ca' Granda +39 02 6610 1029
Centro Antiveleni di Roma
CAV Policlinico "A. Gemelli", Dipartimento di Tossicologia Clinica Universita Cattolica del Sacro Cuore +39 06 305 4343
Centro Antiveleni di Roma
CAV Policlinico "Umberto I", Università di Roma +39 06 4997 8000
Centro Antiveleni di Firenze
Az. Osp. "Careggi" U.O. Tossicologia Medica, S.O.D. di Tossicologia Clinicaicologia Clinica +39 055 794 7819
Centro Antiveleni di Pavia
CAV Centro Nazionale di Informazione Tossicologica, IRCCS Fondazione Maugeri +39 03 822 4444
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Centro Antiveleni di Napoli
Az. Osp. "A. Cardarelli" +39 081 54 53 333
Centro Antiveleni di Verona
Azienda Ospedaliera Integrata Verona +39 800 011 858

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Hazardous to the aquatic environment, chronic		

SECTION 2. Hazards identification ... / >>

toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H318	Causes serious eye damage.
H315	Causes skin irritation.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains: Linalyl acetate 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one Maleic acid May produce an allergic reaction.

Precautionary statements:

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P280	Wear protective gloves / eye protection / face protection.
P310	Immediately call a POISON CENTER / doctor.
P273	Avoid release to the environment.
P391	Collect spillage.
P264	Wash hands thoroughly after handling.

Contains: Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
cetrimonium chloride
BENTRIMONIUM METOSULPHATE

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	Conc. %	Classification (EC) 1272/2008 (CLP)
Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides		
INDEX	3.4	**STOT RE 2 H373, Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1**
EC 271-756-9		
CAS 68607-24-9		
REACH Reg. 01-2119484817-22		
2,6,10-TRIMETHYLDODECANE		
INDEX	2	**Asp. Tox. 1 H304, Aquatic Chronic 4 H413**
EC 622-542-2		
CAS 3891-98-3		
REACH Reg. 01-2119948111-47		

SECTION 3. Composition/information on ingredients ... / >>

cetrimonium chloride

INDEX		1.743	**Acute Tox. 3 H311, Acute Tox. 4 H302, Skin Corr. 1C H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1**
EC	*203-928-6*		**STA Oral: 500 mg/kg, STA Dermal: 300 mg/kg**
CAS	*112-02-7*		
REACH Reg.	*01-2119970558-23*		

BENTRIMONIUM METOSULPHATE

INDEX		1.5	**STOT RE 2 H373, Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Chronic 3 H412**
EC	*279-791-1*		
CAS	*81646-13-1*		

Maleic acid

INDEX	*607-095-00-3*	0.3	**Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Skin Sens. 1B H317**
EC	*203-742-5*		**LD50 Oral: 1030 mg/kg**
CAS	*110-16-7*		
REACH Reg.	*01-2119488705-25*		

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

INDEX		0.259	**Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411**
EC	*915-730-3*		
CAS	*54464-57-2*		
REACH Reg.	*01-2119489989-04*		

Linalyl acetate

INDEX		0.129	**Eye Irrit. 2 H319, Skin Irrit. 2 H315, Skin Sens. 1 H317**
EC	*204-116-4*		
CAS	*115-95-7*		
REACH Reg.	*01-2119454789-19*		

Alpha cedrene

INDEX		0.012	**Asp. Tox. 1 H304, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=10**
EC	*207-418-4*		
CAS	*469-61-4*		

TOLUENE

INDEX	*601-021-00-3*	0.00000	**Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336**
EC	*203-625-9*		
CAS	*108-88-3*		
REACH Reg.	*01-2119471310-51*		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.
INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.
INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT

SECTION 5. Firefighting measures ... / >>

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

ESP	España	Límites de exposición profesional para agentes químicos en España 2021
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

TOLUENE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	192	50	384	100	SKIN
VLEP	ITA	192	50			SKIN
WEL	GBR	191	50	384	100	SKIN
OEL	EU	192	50	384	100	SKIN
TLV-ACGIH			20			

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.013	mg/l
Normal value in marine water	0.0013	mg/l
Normal value for fresh water sediment	1.25	mg/kg
Normal value for marine water sediment	0.125	mg/kg
Normal value for water, intermittent release	0.014	mg/l
Normal value of STP microorganisms	430	mg/l
Normal value for the food chain (secondary poisoning)	6.7	mg/kg
Normal value for the terrestrial compartment	1	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation							VND	0,49 mg/m3
Skin							VND	1,7 mg/kg/d

cetrimonium chloride

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.00068	mg/l
Normal value in marine water	0.00006	mg/l
Normal value for fresh water sediment	8 9.27	mg/kg
Normal value for marine water sediment	0.927	mg/kg
Normal value for water, intermittent release	0.0008	mg/l
Normal value of STP microorganisms	0.4	mg/l
Normal value for the terrestrial compartment	7	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			NEA	2,83 mg/kg/d				
Inhalation			NPI	0,98 mg/m3			NPI	3,32 mg/m3
Skin			NEA	2,83 mg/kg/d			NEA	4,7 mg/kg/d

SECTION 8. Exposure controls/personal protection ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.0028	mg/l
Normal value in marine water	0.00028	mg/l
Normal value for fresh water sediment	3.73	mg/kg
Normal value for marine water sediment	0.75	mg/kg
Normal value for water, intermittent release	0.013	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the food chain (secondary poisoning)	10	mg/kg alim
Normal value for the terrestrial compartment	0.705	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	VND	0,25 mg/kg/d						
Inhalation			VND	0,43 mg/m3			VND	1,76 mg/m3
Skin			VND	0,86 mg/kg/d			VND	1,73 mg/kg/d

Linalyl acetate

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.011	mg/l
Normal value in marine water	0.0011	mg/l
Normal value for fresh water sediment	0.609	mg/kg
Normal value for marine water sediment	0.0609	mg/kg
Normal value for water, intermittent release	0.11	mg/l
Normal value of STP microorganisms	10	mg/l
Normal value for the terrestrial compartment	0.115	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	0,2 mg/kg/d				
Inhalation			VND	0,68 mg/m3			VND	2,75 mg/m3
Skin			VND	1,25 mg/kg/d			VND	2,5 mg/kg/d

BENTRIMONIUM METOSULPHATE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.013	mg/l
Normal value in marine water	0.0013	mg/l
Normal value for fresh water sediment	1.25	mg/kg/d
Normal value for marine water sediment	0.125	mg/kg/d
Normal value of STP microorganisms	0.43	mg/l

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral	NPI	NPI	NPI	NPI				
Inhalation	NPI	NPI	NPI	NPI				0,6 mg/m3
Skin	NPI	NPI	NPI	NPI				3 mg/kg bw/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

SECTION 8. Exposure controls/personal protection ... / >>

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.
When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.
HAND PROTECTION
Protect hands with category III work gloves.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.
SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.
EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.
Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties		Value	Information
Appearance		LUCID CREAM	
Colour		BLUE/GREY	
Odour		STD. REF.	
Melting point / freezing point		not available	
Initial boiling point		not available	
Flammability		not available	
Lower explosive limit		not available	
Upper explosive limit		not available	
Flash point	>	60 °C	
Auto-ignition temperature		not available	
Decomposition temperature		not available	
pH		3,50 - 4,80	
Kinematic viscosity		10.000,0000 - 45.000,0000	
Solubility		not available	
Partition coefficient: n-octanol/water		not available	
Vapour pressure		not available	
Density and/or relative density		0,9910 - 1,0010	
Relative vapour density		not available	
Particle characteristics		not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

SECTION 9. Physical and chemical properties ... / >>

VOC (Directive 2010/75/EU) 1.52 %

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

TOLUENE
Avoid exposure to: light.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

TOLUENE
Risk of explosion on contact with: fuming sulphuric acid,nitric acid,silver perchlorate,nitrogen dioxide,non-metal halogenates,acetic acid,organic nitrocompounds.May form explosive mixtures with: air.May react dangerously with: strong oxidising agents,strong acids,sulphur.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Maleic acid
a) tossicità acuta;
Valutazione di tossicità acuta:
Nocivo per ingestione, assorbimento attraverso la cute e inalazione
Dati sperimentali/calcolati:
DL50 ratto (orale): 708 mg/kg
DL50 coniglio (cutaneo): 1560 mg/kg
LC50 ratto (inalazione) > 0,72 mg/L

b) Corrosione cutanea/irritazione cutanea;
Valutazione dell'effetto irritante: irritante. Per contatto con la pelle si ha irritazione con eritema, edema, secchezza e screpolatura.

c) gravi danni oculari/irritazione oculare;
Valutazione dell'effetto irritante: irritante. Il contatto con gli occhi provoca irritazione; i sintomi possono includere: arrossamento, edema, dolore e lacrimazione.

d) sensibilizzazione respiratoria o cutanea;
Valutazione dell'effetto sensibilizzante: Il contatto del prodotto con la pelle (topo) provoca una sensibilizzazione (dermatite da contatto) - OECD Guideline 429.
Gli studi sull'uomo non hanno mostrato un effetto sensibilizzante (HRIPT) - Good clinical practices guidelines 21CFR part 50, 56

e) mutagenicità sulle cellule germinali;
Valutazione di mutagenicità:
I tests di mutagenicità non hanno rilevato un potenziale genotossico.
Dati sperimentali/calcolati:
test di Ames

SECTION 11. Toxicological information ... / >>

Batteri: negativo

f) cancerogenicità;
Valutazione di cancerogenicità:
La valutazione degli effetti cancerogeni non ha mostrati effetti di cancerogenicità (read across- anidride maleica) - OECD Guideline 451

g) tossicità per la riproduzione;
Valutazione di tossicità per la riproduzione: non sono stati osservati effetti sulla fertilità sui ratti alla dose massima di 55 mg/kg/day somministrata per due generazioni.

h) tossicità specifica per organi bersaglio (STOT) — esposizione singola;
Valutazione STOT singola: ND

i) tossicità specifica per organi bersaglio (STOT) — esposizione ripetuta;
Valutazione della tossicità in seguito a somministrazione ripetuta: ND.

j) pericolo in caso di aspirazione: ND

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

TOLUENE
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

TOLUENE
Toxic effect on the central and peripheral nervous system with encephalopathy and polyneuritis; irritating for the skin, conjunctiva, cornea and respiratory apparatus.

Interactive effects

TOLUENE
Certain drugs and other industrial products can interfere with the metabolism of the toluene.

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	>2000 mg/kg

Maleic acid

LD50 (Dermal):	2620 mg/kg
LD50 (Oral):	1030 mg/kg

TOLUENE

LD50 (Dermal):	> 5000 mg/kg
LD50 (Oral):	5580 mg/kg Rat
LC50 (Inhalation vapours):	28.1 mg/l/4h Rat

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LD50 (Oral):	3190 mg/kg rat

cetrimonium chloride

LD50 (Dermal):	1600 mg/kg rabbit male/female
STA (Dermal):	300 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)
LD50 (Oral):	2410 mg/kg MALE/FEMALE RAT
STA (Oral):	500 mg/kg estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

SECTION 11. Toxicological information ... / >>

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
LD50 (Dermal): > 5000 mg/kg Rabbit
LD50 (Oral): > 5000 mg/kg Rat

Linalyl acetate
LD50 (Dermal): > 5000 mg/kg rabbit
LD50 (Oral): > 9000 mg/kg rat

BENTRIMONIUM METOSULPHATE
LD50 (Dermal): > 2000 mg/kg
LD50 (Oral): 3190 mg/kg rat

Alpha cedrene
LD50 (Dermal): > 2000 mg/kg
LD50 (Oral): > 2000 mg/kg

2,6,10-TRIMETHYLDODECANE
LD50 (Dermal): > 5000 mg/kg
LD50 (Oral): > 5000 mg/kg

SKIN CORROSION / IRRITATION

Causes skin irritation

TOLUENE
irritating to the skin

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
irritating to the skin

cetrimonium chloride
corrosive to skin irritant

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
irritating to the skin

Linalyl acetate
irritante per la pelle

BENTRIMONIUM METOSULPHATE
irritante per la pelle

2,6,10-TRIMETHYLDODECANE
non irritante

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

TOLUENE
irritating to eyes

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
irritating to eyes, irreversible damage

cetrimonium chloride
corrosive and irritating to the eyes

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
not irritating

Linalyl acetate
irritante per gli occhi

BENTRIMONIUM METOSULPHATE
irritante per gli occhi

SECTION 11. Toxicological information ... / >>

2,6,10-TRIMETHYLDODECANE
non irritante

RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.
Contains:
Linalyl acetate
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
Maleic acid

Skin sensitization

TOLUENE
not sensitizing

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
not sensitizing

cetrimonium chloride
not sensitizing

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
skin sensitizer

Linalyl acetate
sensitising

BENTRIMONIUM METOSULPHATE
non sensibilizzante

2,6,10-TRIMETHYLDODECANE
non sensibilizzante

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

TOLUENE
negative

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
negative

cetrimonium chloride
negative

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one
negative

Linalyl acetate
negative

BENTRIMONIUM METOSULPHATE
negative

2,6,10-TRIMETHYLDODECANE
negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

TOLUENE
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

SECTION 11. Toxicological information ... / >>

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

12.1. Toxicity

Maleic acid

LC50 - for Fish	75 mg/l/96h
EC50 - for Crustacea	42.81 mg/l/48h
EC50 - for Algae / Aquatic Plants	74.35 mg/l/72h
Chronic NOEC for Crustacea	10 mg/l

TOLUENE

LC50 - for Fish	5.5 mg/l/96h
EC50 - for Crustacea	3.78 mg/l/48h
Chronic NOEC for Fish	1.4 mg/l 40d
Chronic NOEC for Crustacea	0.74 mg/l 7d
Chronic NOEC for Algae / Aquatic Plants	10 mg/l 72h

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides

LC50 - for Fish	3.5 mg/l/96h Danio rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna (reproduction)
EC50 - for Algae / Aquatic Plants	3.48 mg/l/72h Desmodesmus subspicatus (growth rate)
EC10 for Algae / Aquatic Plants	0.78 mg/l/72h Desmodesmus subspicatus (growth rate)
Chronic NOEC for Fish	0.24 mg/l
Chronic NOEC for Crustacea	0.119 mg/l Daphnia magna (21 d)

cetrimonium chloride

LC50 - for Fish	0.21 mg/l/96h
EC50 - for Crustacea	0.012 mg/l/48h
EC50 - for Algae / Aquatic Plants	0.155 mg/l/72h
Chronic NOEC for Crustacea	0.0068 mg/l
Chronic NOEC for Algae / Aquatic Plants	0.08 mg/l/72h

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one

LC50 - for Fish	1.3 mg/l/96h Lepomis macrochirus
EC50 - for Crustacea	1.38 mg/l/48h Daphnia sp.
EC50 - for Algae / Aquatic Plants	> 2.6 mg/l/72h Growth rate Desmodesmus subspicatus
Chronic NOEC for Crustacea	0.044 mg/l Mortality Daphnia magna (21d)

Linalyl acetate

LC50 - for Fish	11 mg/l/96h Cyprinus carpio
EC50 - for Crustacea	59 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	68 mg/l/72h
Chronic NOEC for Algae / Aquatic Plants	3.9 mg/l 72 h

SECTION 12. Ecological information ... / >>

BENTRIMONIUM METOSULPHATE	
LC50 - for Fish	3.5 mg/l/96h Danio Rerio
EC50 - for Crustacea	1.39 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	3.4 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish	0.24 mg/l Danio Rerio
Chronic NOEC for Crustacea	0.13 mg/l Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	0.78 mg/l Desmodesmus subspicatus

Alpha cedrene	
LC50 - for Fish	< 0.1 mg/l/96h
Chronic NOEC for Fish	< 0.01 mg/l

12.2. Persistence and degradability

TOLUENE	
Solubility in water	100 - 1000 mg/l
Rapidly degradable	

Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides
Rapidly degradable

cetrimonium chloride	
Solubility in water	240 mg/l
Rapidly degradable	

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethane-1-one	
Solubility in water	2.68 mg/l
Rapidly degradable	

Linalyl acetate	
Solubility in water	30 mg/l
Rapidly degradable	

BENTRIMONIUM METOSULPHATE	
Solubility in water	7 mg/l
Rapidly degradable	

Alpha cedrene
Degradability: information not available

12.3. Bioaccumulative potential

TOLUENE	
Partition coefficient: n-octanol/water	2.73
BCF	90

cetrimonium chloride	
Partition coefficient: n-octanol/water	3.08 Log Kow

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; cetrimonium chloride)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; cetrimonium chloride)
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Quaternary ammonium compounds, C20-22-alkyltrimethyl, chlorides; cetrimonium chloride)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9

IMDG: Class: 9 Label: 9

IATA: Class: 9 Label: 9

14.4. Packing group

ADR / RID, IMDG, IATA: III

SECTION 14. Transport information ... / >>

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous

IMDG: Marine Pollutant

IATA: Environmentally Hazardous

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 90 Special provision: -	Limited Quantities: 5 L	Tunnel restriction code: (-)
IMDG:	EMS: F-A, S-F	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
	Passengers:	Maximum quantity: 450 L	Packaging instructions: 964
	Special provision:	A97, A158, A197, A215	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EU: E2

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product
Point 3 - 40

Contained substance
Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Skin Corr. 1C	Skin corrosion, category 1C
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1	Skin sensitization, category 1
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H225	Highly flammable liquid and vapour.
H361d	Suspected of damaging the unborn child.
H311	Toxic in contact with skin.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.

SECTION 16. Other information ... / >>

- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:
The following sections were modified:
01 / 02 / 03 / 08 / 11 / 12 / 16.

Information Sheet

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**80013**
Product name	**PROTECTION PROVIDER**

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	**cosmetic product not in the finished state - professional / industrial use**

1.3. Details of the supplier of the safety data sheet

Name	**Davines S.p.A.**
Full address	**Via Ravasini, 9/A**
District and Country	**43126 Parma (PR)** **Italia** **Tel. +39 0521 96 56 11** **Fax +39 0521 29 25 97**
e-mail address of the competent person responsible for the Safety Data Sheet	**sds@davines.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**Centri antiveleni (24/24h):** **Pavia 0382/24444;** **Milano 02/66101029;** **Foggia 0881/732326** **Bergamo 800 883300;** **Firenze 055/7947819;** **Roma Gemelli 06/3054343;** **Roma Umberto I 06/49978000;** **Napoli 081/7472870;**

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements).

Hazard classification and indication: --

2.2. Label elements

Hazard pictograms: --

Signal words: --

Hazard statements: --

Precautionary statements: --

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients ... / >>

SECTION 3. Composition/information on ingredients

3.2. Mixtures

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions Regulation (EU) 1272/2008 (CLP) (and subsequent amendments and supplements) in such quantities as to require the statement.

SECTION 4. First aid measures

4.1. Description of first aid measures

Not specifically necessary. Observance of good industrial hygiene is recommended.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use breathing equipment if fumes or powders are released into the air. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Confine using earth or inert material. Collect as much material as possible and eliminate the rest using jets of water. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

7.2. Conditions for safe storage, including any incompatibilities

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

Comply with the safety measures usually applied when handling chemical substances.
HAND PROTECTION
None required.
SKIN PROTECTION
None required.
EYE PROTECTION
None required.
RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.
ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties		Value	Information
Appearance		TRANSPARENT FLUID GEL	
Colour		colourless	
Odour		REF.STD	
Odour threshold		Not available	
pH		5,2000 - 6,2000	
Melting point / freezing point		Not available	
Initial boiling point		Not available	
Boiling range		Not available	
Flash point	>	60 °C	
Evaporation rate		Not available	
Flammability (solid, gas)		Not available	
Lower inflammability limit		Not available	
Upper inflammability limit		Not available	
Lower explosive limit		Not available	
Upper explosive limit		Not available	
Vapour pressure		Not available	

SECTION 9. Physical and chemical properties ... / >>

Vapour density	Not available
Relative density	1,0680 - 1,0780
Solubility	Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	1.000,0000 - 2.000,0000
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	4,00 %	-	42,92	g/litre
VOC (volatile carbon) :	1,89 %	-	20,30	g/litre

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

LC50 (Inhalation) of the mixture:	Not classified (no significant component)
LD50 (Oral) of the mixture:	Not classified (no significant component)
LD50 (Dermal) of the mixture:	Not classified (no significant component)

SECTION 11. Toxicological information ... / >>

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

Information not available

12.2. Persistence and degradability

Information not available

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Information not relevant

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Category - Directive 2012/18/EC: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
None

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage greater than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

SECTION 15. Regulatory information ... / >>

Healthcare controls
Information not available

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/1480 (XIII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

SECTION 16. Other information ... / >>

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
03 / 06 / 09 / 11 / 15.